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*Official organ of the Pharmaceutical Society of Ireland
and of the Pharmaceutical Society of Northern Ireland*

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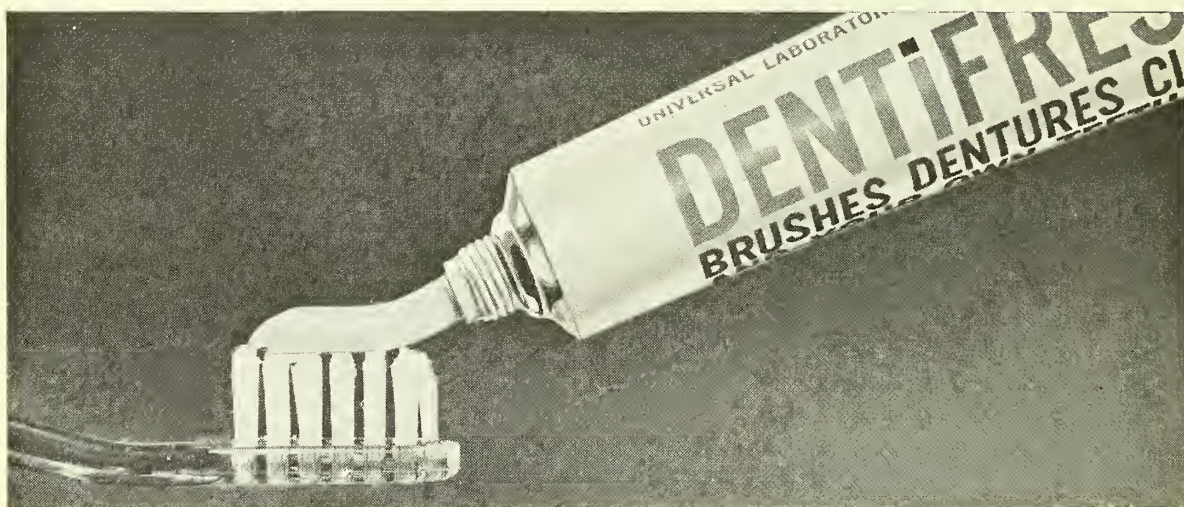
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The CHEMIST AND DRUGGIST

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Chemists Sales in 1965

FIVE PER CENT. INCREASE FORECAST

RETAIL sales by chemists and photographic shops rose by 6 per cent. in 1964 to just under £300 millions and the growth rate has continued into the first half of 1965, according to a report in *Retail Business* published by the Economist Intelligence Unit. The figures exclude contributions received from National Health Service dispensing. Long-term prospects continue to be good, says the article, for photographic and cosmetic goods. "Other" retailers are less likely to be attracted to photographic products than most other consumer products. Describing the current period as a "crucial" one the article forecasts a total sales increase by chemists and photographic dealers in 1965 of 5 per cent. over 1964 of which the independents will rise by only 2 per cent., multiples by 7 per cent. and co-operatives, 5 per cent.

Ministry Warning

LIVER FLUKE AND BLACK DISEASE

PROSPECTS for the coming autumn and winter are for a bad fluke season in Wales, states the Ministry of Agriculture, Fisheries and Food. In England prospects are slightly better. The season is not likely to be as catastrophic as either 1954 or 1958, but it is expected to be slightly worse than 1946—another recognised bad year for the disease. A high incidence of disease is expected on fluke infested farms in Wales. In South West and North West England incidence is not expected to be quite so high, but will be "in the upper range of the above-average category." Elsewhere in England incidence is expected to be above average decreasing from West to East. Unless adequate control measures are undertaken losses are expected to commence towards the end of October, and reach a peak in late December and early January. A high incidence of black disease is also expected in Wales and North West England. Losses from that disease are likely to commence in September.

Fertility Drugs

INVESTIGATION IN B.B.C. PROGRAMME

"BREAKTHROUGH in Fertility Drugs, Cancer and Measles" is the subject of the last of the occasional series "Breakthrough" which is being broadcast in the B.B.C. Home Service on September 2. In the programme, introduced by Mr. Stephen Grenfell, Dr. D. Long (head of the medical research department, Wellcome Foundation), discusses the use of "fertility"

drugs and puts their efficacy into perspective. Mr. Grenfell has also visited the Imperial Cancer Research Fund laboratories where advances in the treatment of breast cancer have been achieved. A doctor on the staff of the National Council for Medical Research describes work being done in the freezing and storing of cartilage cells.

Government Chemist

REPORT FOR 1964

PUBLIC concern about the misuse and purity of drugs is reflected in the number of samples examined for Ministry of Health supplies, says the report for 1964 of the Government Chemist (H.M. Stationery Office, price 8s.). Commenting on the Dangerous Drugs Act, 1964, the report says that cannabis (upon which closer restrictions were imposed) has replaced opium as the most frequent among the Dangerous Drug samples examined in the laboratory. It warns that with the stricter control of particular drugs, there is a danger of the introduction or freer use of uncontrolled alternatives. Naturally occurring hallucinogens such as mescaline, lysergamide, and the hydroxydimethyl tryptamines, including psilocin and bufotenine, have potential in that respect. During the year the laboratory has continued measuring the residues from chlorinated pesticides (such as DDT) in

animal and human fat, and has now measured residues in wild life, birds' eggs and fatty foods.

A.B.P.I. [Publicity

PROPOSED PLAN IS ABANDONED

THE Association of the British Pharmaceutical Industry is not to proceed with its proposed publicity campaign. It was reported at the beginning of the month that Imperial Chemical Industries, Ltd., had resigned from membership of the A.B.P.I. because they thought the time inopportune for spending something like £97,000 on such a project (*C. & D.*, August 7, p. 131). The A.B.P.I. board of management on August 24 referred the matter to the appropriate committee who decided unanimously that the project should be dropped.

Perkin Trust

APPLICATIONS FOR AWARDS INVITED

THE Perkin Centenary Trust, established to commemorate the centenary of the discovery by William Henry Perkin in 1856, of Mauveine, the first important synthetic dye, is inviting applications for the awards for 1966-67. The awards are the centenary scholarship (to enable candidates employed in an industrial company or other institution concerned with the manufacture



BOUQUET FOR BRITISH RAIL: A bouquet was handed to British Rail by Burroughs Wellcome & Co. on August 19 as an appreciation of special service in the speeding of their polio vaccine to Lancashire. Throughout the period of high demand more than half a million doses of the vaccine were dispatched in two weeks. Mr. T. Baines (transport manager, Burroughs Wellcome & Co.) (left), is seen with Mr. E. Drinan (station manager, Euston), as another consignment is dispatched.

or the application of colouring matters to study at a university or technical college) and travel grants (available to teachers concerned with the study of any aspect of the manufacture or the application of colouring matters at a university, technical college or other institution). Inquiries should be addressed to: The Secretary, The Perkin Centenary Trust, c/o The Chemical Society, Burlington House, London, W.1.

IRISH NEWS

THE REPUBLIC

Pharmacy Week

PROGRAMME OUTLINED

PHARMACISTS wishing to take part in this year's Pharmacy Week, being held in Cork, from October 10-14, are being urged by the organisers not to delay in completing booking arrangements for accommodation. Details of the week's events, and tickets for the functions, can be obtained from Mr. J. O'Farrell, Maxine, Glasheen Road, Cork, or Mr. F. J. Bourke, Iona Park, Mayfield, Cork. Local organisers are making an all-out effort to ensure that the function will be well up to the standard of previous years. Opening

event, on October 10, is an informal reception at the Imperial hotel. Religious services are being arranged on the morning of October 11, followed by the opening of a photographic competition (details from Mr. A. McSweeney, 91 Patrick Street, Cork). In the afternoon a visit to Our Lady's hospital has been arranged, followed by a lecture. That evening the annual meeting of the Pharmaceutical Society of Ireland is being held. October 12 is being left free for delegates to relax while the October meeting of the Council is held (a morning film show and afternoon tour of Kinsale will be arranged, however). An important lecture will be held in the evening. On the third day there is a golf competition, a fashion and cosmetic show, and a tour of the city, with a further lecture in the evening. Final day starts with a lecture, followed by a lecture and demonstration on tablet identification. A formal banquet brings the Week to a close. An innovation will be the establishment of a pharmacy club where visitors can retire between functions for informal discussion and refreshments. A season ticket (£4 4s.) covers all functions. Banquet tickets alone are £2 2s. each. Admission to any single function is £1 1s.

EXPERIMENTS ON ANIMALS

Official Returns for 1964

A TOTAL of 4,494,931 experiment were carried out on living animals in Britain during 1964, states Sir Frank Soskice (Home Secretary) in the Return of Experiments performed under the Cruelty to Animals Act, 1876 (H.M. Stationery Office, price ninepence). The experiments were performed by 6,423 licensees and some 805,428 experiments were carried out on behalf of the Government Departments and bodies such as the Medical Research Council. The number of experiments without anaesthesia comprised almost 90 per cent. of all experiments performed during the year. The procedures used consisted for the most part of inoculations, external applications or stimuli, modifications in diet or environment, or administration of some pharmaceutical or biological product, followed in each case by observation of any effects.

The animals used included 14,036 cats and 13,169 dogs. In the course of cancer investigations 625 licensees carried out 343,902 experiments, including 88,923 performed under anaesthesia and 254,979 without anaesthetics. The animals used included 119 cats and 152 dogs. The Report states that for the purpose of public health or directly for the diagnosis of disease in man or other animals 244,432 experiments were made. Of the experiments carried out with substances intended for use in the treatment of disease in man and other animals, 1,411,872 were mandatory tests for the standardisation of sera, vaccines or drugs required under the Therapeutic Substances Act, 1956 and the Diseases of Animals Act, 1950. The Report points out that similar tests are required by legislation in countries overseas to which drugs might be exported. During the course of the year, 2,170 visits, mostly without previous notice, were paid by the

Inspectors to registered laboratories. In seven cases where irregularities were noted it was concluded that there had been no deliberate intention of evading the requirements of the Act and that it sufficed to send the person concerned a letter of admonition and warning from the Secretary of State in which the need for scrupulous observance of the requirements of the Act was stressed.

"Political" Considerations

The Universities Federation for Animal Welfare, commenting on the number of animals used for experiments, state: "A large proportion of such procedures are concerned with toxicity-testing, which has greatly increased since the thalidomide tragedy was so dramatised as to give rise to a panic. In our view, which seems to be shared by most scientists who have a knowledge of the subject, many of the tests are necessitated by what may be called 'political' rather than scientific considerations and are, in fact, valueless, entailing a wasteful use of animals; moreover, in other cases it may well become possible to improve the technique from a humane point of view."

UFAW is accordingly about to set on foot, under the guidance of its expert Scientific Advisory Committee, a three years' investigation of toxicity-testing, centred in the Medical School in the University of Birmingham and directed by one of the most eminent authorities on the subject. This undertaking will cost at least £30,000, but while its primary object is to save animals from useless suffering it is almost certain to lead also to results beneficial to human medicine, if the requisite financial support can be obtained."

Lourdes Pilgrimage

SOME PARTICIPANTS RECEIVE MEDALS

THERE were fifty participants in the annual Irish pharmaceutical pilgrimage to Lourdes, August 2-15. The group took part in various religious exercises and helped in looking after the needs of the sick. They were congratulated on their work at an eve-of-departure dinner by Right Rev. Monsignor Viscaro (Rector of the Sanctuary and Count de la Poeze, President of The Hospitality). A number of the pilgrims were presented with medals in recognition of their work in tending the sick and helping with nursing operations. Miss Tierney, Clones, was awarded the silver medal of the Seven Dolours.

Students' Congress

PREPARATIONS COMPLETE

ALL is now in readiness for the eleventh Congress of the International Pharmaceutical Students' Federation being held in Bray, co. Wicklow (September 1-11). The Congress will be formally opened by the Minister for Health (Mr. O'Malley), and it is expected that over 160 students from all parts of the world will attend. A team of interpreters has been engaged and headphones are being installed in the congress hotel to carry the deliberations "live" in the tongues of the various countries represented.

OVERSEAS NEWS

AUSTRALIA

Inoculations Against Polio

It has been estimated that 2 million injections of polio vaccine have been given in South Australia by the Public Health Department's polio service. About 650,000 persons in the State have had three or more injections. The Salk campaign started in June 1956, in which year there were 122 cases of polio with three deaths. In 1951 there had been nearly 1,500 cases including sixty-two deaths. The last case reported in South Australia was in October 1963.

ITALY

Report on Drug Industry

AN Italian Parliamentary Committee inquiring into monopolies in that country has found that out of the average retail price of medicinals the actual cost of the components, packaging and labour accounted for less than 40 per cent., the remainder being accounted for by other costs, of which advertising and free samples to doctors accounted for the greater part. The Committee's report is to be delivered to Parliament next month. The report expresses considerable regret for the all but complete disappearance of the practice for pharmacists to make up simple medicines and prescriptions most are now being prescribed under a patented name. There are over 19,000 medicines with patented names in Italy, and 26,000 different packagings of them. In the course of its investigations the Committee found that no less than nineteen replicas of an original product were being marketed.

names by small companies. The pharmaceutical company which had discovered and developed the drug at a high cost had lost 25 per cent. of the market to the replicas. A bill allowing the patenting of drugs is to come before Parliament in the near future.

NEWS IN BRIEF

THE World Health Organisation has issued a catalogue of its publications, 1947-64. Copies are available from H.M. Stationery Office.

A BOOKLET describing the industrial art bursaries being offered by the Royal Society of Arts in 1965 is available from the Society at John Adam Street, Adelphi, London, W.C.2.

A REPORT, "Antimalarial prophylaxis in primary schools in Eastern Nigeria, February-March 1965," is available free of charge from the Wellcome Museum of Medical Science, 183 Euston Road, London, N.W.1. The prophylactic drug used in the study was pyrimethamine.

DETAILS of revised arrangements and remuneration for the supply of oxygen therapy services under the National Health Service by chemist contractors in Scotland have now been circulated by the Scottish Home and Health Department.

OPPORTUNITIES for careers in the many different branches of social work are described in "Social Workers," a revised booklet in the "Choice of Careers" series, issued by the Central Youth Employment Executive (No. 102, third edition, H.M. Stationery Office, price 1s. 9d.).

GROWERS who intend to use organo-mercury compounds in bulb dips during the present season should ensure that operators wear protective clothing when preparing solutions and processing the bulbs. Premises in which the routine is carried out should be well ventilated. That advice is given by the Ministry of Agriculture, Fisheries and Food after consideration by the Advisory Committee on Pesticides and Other Toxic Chemicals.

THE first speaker in the Autumn series of "New Thinking" luncheons organised by the Industrial Welfare Society, 48 Bryanston Square, London, W.1, is to be Mr. Aubrey Jones (chairman, National Board for Prices and Incomes). He will be talking about the working and activities of the Board and answer questions after the lunch which is to be held at the Connaught Rooms, London, W.C.2, on September 21. The luncheon speaker will be followed by a talk on productivity and restrictive practices by Mr. W. W. Allen (managing director, Emerson Consultants, Ltd.).

SPORT

Golf

MANCHESTER PHARMACEUTICAL GOLFING SOCIETY. Members played a four-ball Stableford competition at Chorley Old Golf Club, Adlington, West Chorley, on August 11, for prizes presented by Robinson & Sons, Ltd., Chesterfield. Winners were J. Roylance and S. Rigby (score 42 points).

LOCAL OFFICERS

PHARMACEUTICAL SOCIETY

Cardiff.—Secretary, E. Davies, 14 Vishwell Road, Pencisely, Cardiff.

TOPICAL REFLECTIONS

By Xrayser

The changing scene

I referred a week ago to the upheaval in the lives of the older generation envisaged by the slow, relentless march toward a world geared to the metric system. Many in pharmacy today have already passed through other great revolutions in practice, having witnessed the decline of the extemporaneously prescribed and compounded medicine; the emergence of the powerful single drug, in capsule or tablet form, and the dominance of the laboratory and factory product. All of that was inevitable, for many of the medicines of today do not lend themselves to individual production, no matter how skilled or how willing. But that has not led to the atrophy of the particular accomplishments which were so much a part of the composition of the older pharmacist. Rather have those qualities been forced into a form of hibernation, broken occasionally by the inspiration of a physician of the same vintage who, though not unaware of the power and the convenience of the present-day ammunition, has found that, in his observation and his experience, there are still some simple and well-tried remedies which might bring about the desired result. Such medicines need no publicity, printed or vocal. They have no side-effects, and their safety has been proved by their extensive use throughout generations of medical practice. And some of the more elderly physicians persist in prescribing the old and the tried with astonishing success and with what must appear, to the persuasive propagandist of the latest from the laboratory, to amount almost to perverseness. They have, out of keen observation and the wisdom which comes only from experience, cultivated the ways of Sydenham and others of earlier times, who believed that it was necessary to establish the nature of the illness before commencing treatment. Not for them the immediate attack with the newest "blanket" drug, which might suppress symptoms and obscure the true nature of the affliction. There was a time when the blunderbuss prescription was despised—and with good reason. I think it was Heberden who threw doubt first on the efficacy of the composite and all-embracing preparations known as the theriaca. But the literature of some of the modern products might almost suggest that the blunderbuss has been replaced with something out of the atomic age, with a much wider and much more devastating arc of fire.

Attendant problems

The changes in practice have brought about changes in the character of what used to be generally referred to as "the wholesale." It was a far from accurate description of an essential part of the pharmaceutical scene, for such centres of distribution were engaged in much more than wholesale dealing. They had arisen in the first place to meet the requirements of pharmacists who, for a variety of reasons, found it impracticable to continue the small scale manufacturing of galenicals in their own pharmacies. It was natural that the larger establishment, making considerable quantities of tinctures and ointments, should find ready acceptance of their products. And for many years it was the practice of the representatives of such manufacturing houses to solicit orders for their own galenicals. But now, with almost dramatic suddenness, the picture has changed.

Rationalisation

The demand for galenicals has fallen, and a natural outcome is that their manufacture should be undertaken by fewer firms, some of which specialise in what has now become a rarer field. But I have observed that, in the case of the less popular galenicals, there may be considerable delay in supply, if, in fact, they arrive at all. There seems to be a reluctance on the part of some of the firms once so eager to sell their own galenicals, to keep comprehensive stocks. And, in fact, we may experience, in the midst of modern development, a throw-back to the small scale manufacture of some of the rarer galenicals in the pharmacy itself. The skills, as I have said, are only dormant, and in some cases the apparatus, perched in inaccessible loneliness on a top shelf, is being rescued from obscurity, washed, and pressed into service.

Domestic Accidents

POISONING ASPECTS INCLUDED IN W.H.O. PAPER

DOMESTIC Accidents are the subject of a Public Health Paper (No. 26) issued by the World Health Organisation (H.M. Stationery Office, price 10s.). The author, Professor E. Maurice Backett (professor of social medicine, University Aberdeen), reviews the nature and extent of the domestic accident problem, its epidemiology, and steps in its control and prevention. Poisoning, he says, is second or third in importance as an external cause of fatal domestic accidents in developed countries. Of all such accidents poisoning and gassing account for 9 per cent. in Canada, 8 per cent. in the United States, 16 per cent. in Japan, over 22 per cent. in England and Wales and over 30 per cent. in Scotland (which in that respect "leads the world"). Throughout the world children are specially vulnerable. However, death rates rise with age in most countries for which figures are available.

Estimates of the extent of preventability should be irrelevant, he says, since it is hard to think of any domestic poisoning that is not preventable with reasonable care. Area and the culture both influence poisoning patterns, which depend upon local custom (for example, the way medicines are prescribed) and the local availability of substances. In the West, special hazards arise from the resemblance, in appear-

ance and colour, between certain sweets, and tablets containing dangerous drugs, and the similarity in appearance of substances such as bleach solution and familiar drinks. "There is a strong case for firm legislative action where one product that is harmful resembles another normally eaten. When both are sugar coated, and therefore taste the same, the matter is urgent." The writer believes that to distinguish between the two by printed labels is of little value because small children are the most frequent victims and they are likely to be influenced more by shape, taste and colour than by printed labels.

In most studies of poisoning between one third and one half of the cases have resulted from taking medicine. "It seems likely that the bottle of medicine—unpleasant alike in taste, smell and appearance—which was the more usual way of prescribing remedies until about twenty years ago, would be less attractive to children than the tablets and capsules of today." "Society has a clear choice: The price that must be paid for the attractive colours, sugar coverings and pleasing shapes of tablets containing dangerous drugs can be measured in at least a few child lives each year and we must decide whether we wish to pay this price."

Some steps in preventing poisoning from drugs are outlined by Professor Backett. He praises the container for drugs having a spring clip cap that must be pressed sharply before it opens (and is therefore difficult for children to open) which he says is used by some dispensing pharmacists for dangerous tablets and capsules—the cost being borne by the purchaser. He also suggests that physicians should warn patients of dangers associated with taking alcohol and certain drugs at the same time; of the danger of keeping sleeping tablets at the bedside table, and the consequences of keeping dangerous drugs in open cupboards that can be reached by children. An important part in domestic poisoning is played by the increasing numbers of insecticides and rodenticides. Inadequate labelling and the habit of keeping such poisons in the kitchen have been factors in some fatal poisonings.

Summing up his section on poisoning, Professor Backett says that curative medicine has only a limited contribution to make in solving the domestic accident problem. "Perhaps a systematic and regular scrutiny of all household substances by an independent body with individual advice where possible from the family doctor and health department visitors might help to prevent these accidents."

LONDON B.PHARM. SUCCESSSES

THE following were successful in the 1965 B.Pharm. examination of the University of London. Degrees were awarded on August 1.

Internal Students

(Students attended the School of Pharmacy, University of London, unless otherwise indicated)

First-class honours:—

BALL, K.
BRUMMER, Hilary C.
BRZIAK, Pauline
GEE, J. A.
KELLER, Carol, Chelsea
SUMMERS, R. J.
WALKER, Sally

Second-class honours (upper division):—

ANDREWS, G. D.
BOORMAN, R. S., Chelsea
CALLOW, J. A. B.
COOPER, Lesley V.
DE SILVA, K. T. D.
DICKINSON, Ruth
FREEDMAN, D., Chelsea
KELLAWAY, I. W.
LEE, P. J., Chelsea
LOMBERS, Eileen W.
MOFFAT, A. C., Chelsea
PAY, D. C.
PINNEY, R. J.
POYNTER, R. W.
RATCLIFFE, J. S.
SINGER, S. G.
WALLINGTON, J. S., Chelsea
WOODS, D. L.

Second-class honours (lower division):—

BAKER, B. S., Chelsea
BELLAMY, P. V.
BIELCZYK, Anna D., Chelsea

BILLINGTON, G. M.
BLAND-WARD, A. R., Chelsea
BOYD, G. A., Chelsea
BRIDGES, T. E., Chelsea
CARTER, J. W. L.
CATERER, Helen
CROSSLEY, Myra G., Chelsea
DIXON, D. J.
ESOM, T. M.
EVANS, Mavis J., Chelsea
DAVIS, R., Chelsea
EVANS, N. G., Chelsea
FREED, Marilyn G., Chelsea
GLASBY, J.
HANSON, Christine M., Chelsea
IRVING, Margaret E., Chelsea
ISAACS, B. S., Chelsea
JONES, Margaret
KENNEDY, Heather A., Chelsea
KLEIN, N., Chelsea
LEWIS, Meryl A.
LISTER, Janet S.
LOTEN, J. R., Chelsea
MANNERS, Margaret E., Chelsea
MELZACK, D. H.
MOON, Josephine D., Chelsea
NASH, R. J.
NORTHWOOD, W. E., Chelsea
RADFORD, Sylvia, Chelsea
RICE, H. L.
RICHARDS, I. D., Chelsea
RICKARD, Alice N.
SAX, P., Chelsea
SEMLER, A. R., Chelsea
SHERWOOD, Kitty J., Chelsea
SHOHAM, Sandra R., Chelsea

SILK, M., Chelsea
WADE, Julia H., Chelsea
WALKER, D. A., Chelsea
WILLSON, J. S.
WOLFE, Vera M., Chelsea
WOODWARD, Carol S.

Pass:—

AMSTELL, Beryl A., Chelsea
AVES, Sylvia J., Chelsea

CANNING, S. M., Chelsea
CASTELL, A. D., Chelsea
FREEDMAN, S. D., Chelsea
GOODWIN, Carol M., Chelsea
PARKES, Janis
RAYNER, M. L., Chelsea
ROGERS, M. L., Chelsea
ROY, N. J., Chelsea
SMITH, Rosemary J., Chelsea
WALKER, Lesley C., Chelsea

External Students

First-class honours:—

SMITH, C. J., Leicester

Second-class honours (upper division):—

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CHILVERS, Rosemary, Leicester
FOX, J. E., Sunderland
GILBERT, P. L., Leicester
GREER, D. R., Birmingham
HERBERT, R., Sunderland
HIBBERT, H. R., Leicester
ISMAIL, A. G., Sunderland
JAFFER, T., Leicester and Sunderland
KITCHEN, D. A., Leicester
MARSDEN, D., Bradford
SHAH, P. K. J.
SELF, M. A. A., Brighton
Pharmacy
SOPER, C. J., Bristol

Second-class honours (lower division):—

ALLEN, M. O. G., Leicester
BATEMAN, Susan M., Brighton
BEVIS, D. N., Bradford
BUNNEY, J. E., Sunderland
BURDEN, M. J. S., Leicester
CAIROLI, Mary D., Bristol
CHAMBERS, D. M., Brighton

CHATTERLEY, Pauline, Leicester
CHAUHAN, C. P. D., Sunderland
COLLINS, Andrea M., Leicester
EDEN, B. P. J., Brighton
EGGESTON, Joan H., Sunderland
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PEEL, A., Bradford
PETRE, R., Sunderland
PICK, Jennifer R., Leicester
ROWAN, Edith M., Brighton

SHATWELL, J., Sunderland
SMITH, R. W., Bradford
STEINBERG, Marion E., Brighton
TALL, D., Sunderland
THAKKAR, A., Sunderland
TUCKER, M. L., Sunderland
WANLESS, Joan M., Sunderland

Pass.—
BAKER, P. A., Brighton
BEAL, A., Bradford
BOORMAN, G. C., Birmingham
CHEESMAN, R. N., Sunderland
EKPO, A. H., Sunderland
FRENCH, Christine M., Sunderland

GITTINS, Gillian M., Brighton
GREENWOOD, R. K., Brighton
HIRST, J. A., Bradford
LEDGER, I. A. D., Brighton
MORGAN, Diana C., Leicester
MOUNTFORD, L., Sunderland
ROGERS, Jennifer A., Brighton

SAXBY, Margaret E., Sunderland
SEANOR, G. V., Brighton
SMITH, R. M., Sunderland
THOO, S. K., Sunderland
TOPHAM, J. D.
WADEY, L. C., Sunderland
WILLIAMS, A., Leicester

Dangerous Chemicals

REPORT CRITICISES SALES TO SCHOOLBOYS

THE apparent ease with which schoolboys have been able to obtain quantities of dangerous chemicals is a disturbing feature of a number of cases investigated by the Inspectors of Explosives and mentioned in their annual report for 1964 (H.M. Stationery Office, three shillings). The inspectors state "We should be grateful if suppliers of these substances would assure themselves of the *bona fides* of customers before agreeing to despatch."

They report a significant reduction to fourteen in the number of cases of illegal manufacture brought to their notice in 1964. The previous year's figure of twenty-nine "was itself encouraging in view of the fifty-three cases in 1962." Illegal manufacture of explosives was highly dangerous, and most involved compositions which, if they were made at all, would only be authorised for manufacture under the strict conditions laid down in factories licensed by the Secretary of State. Reference is made to the death of a boy from the explosion of a bomb containing a chlorate mixture. The notebook of the boy was found to contain instructions for the manufacture of dynamite "which may well have resulted in an accident if attempted. It is clear that he had probably been carrying out dangerous experiments over a period of time." The inspector's point out that the majority of cases of which they were aware involved young people and "it would be helpful if there were more parental control over these activities."

Illegal Manufacture

Each of the fourteen cases of illegal manufacture reported to the inspectors resulted in personal injury of some gravity. One boy was killed, three lost hands and eighteen others were seriously injured in various ways: the mother of one of them was also injured. In one

case a sixteen-year-old youth obtained large quantities of a range of hazardous chemicals from a firm of scientific instrument makers. He was mixing some of them with the object of producing a rocket propellant, when they exploded, causing him serious facial injuries. The sight of one eye was lost completely and the other was permanently affected. Two schoolboys, who

had obtained chemicals from a laboratory supplies company, were exploding "bombs" made in milk tins containing mixtures of those materials. One such explosion resulted in the death of the older boy and serious injuries to the younger.

Other incidents concerned the misuse of sodium chlorate-sugar mixtures and one silver acetylide.

NEW SURREY RESEARCH CENTRE

Ambitious programme for laboratories ready in 1967

PLANNING permission has been received by Lilly Research Centre, Ltd., to construct a new £1-million research station at Windlesham, Surrey, on property acquired earlier in the year. It is hoped to begin construction early in 1966 and completion is due in 1967.

Facilities will comprise three new single-storey buildings as well as administrative offices sited in Erl Wood House, which was originally built in the late eighteenth century. The new buildings are designed to harmonise with the existing house and landscape and all laboratories are all to be on external walls with a centre core of rooms containing all special research facilities. Flexibility and service feed, of vital importance in a research unit, are achieved by a system of intercommunicating underground service tunnels running the length of each building, to be used for easy maintenance, addition of service and for waste disposal. The buildings are designed on a special modular dimension to facilitate expansion or contraction of departments as the research programme changes.

It is intended that the new laboratories will complement but in no way duplicate the work carried out by Lilly's 1,500 strong research and development group in Indianapolis,

U.S.A., and a considerable increase in research expenditure—which rose to a record \$27 millions (£9.6 millions) in 1964—is foreseen. Initial research programmes will be concentrated on anti-rheumatic and anti-inflammatory drugs; parasitic tropical diseases including bilharzia, amoebiasis, trypanosomiasis and malaria; anti-bacterial agents; mode of action and metabolism of drugs; toxicology; pure chemical research; chemical analysis and pharmaceutical research including problems of speed of release and absorption, depot action and general stability. The programme will provide work for 80 graduates, of whom about half will hold higher degrees.

According to tradition, Erl Wood House, which stands in 47 acres of garden and parkland, was used as a hunting lodge by William Frederick, Duke of Gloucester (1776-1834), an enlightened, liberal nephew of George III, who fought for the abolition of slavery and the right of Roman Catholics to sit in Parliament. By 1829 Erl Wood was the residence of Sir Edmund Currey (Gloucester's A.D.C. and Comptroller of his Household) who lived there until his death in 1842. Since then it has been used as a private residence and more lately as offices.



Erl Wood House, the 18th-century building which will house the administrative offices of Lilly Research Centre, Ltd. It is said that the house was used as a hunting lodge by William Frederick, Duke of Gloucester, at the beginning of the nineteenth century. Right: An artist's impression of the new centre to be built at Windlesham.

LEGAL REPORTS

Unauthorised

AN Indian ship's galley boy was alleged to have cannabis in his possession, the black market value of it being £10,000, said a police officer, prosecuting at Liverpool city magistrates' court on August 17. Ambrose Dourado was charged with being in unauthorised possession of 16 lb. of cannabis, and was remanded in custody.

Teenage Drugtakers

Two Halifax teenagers who, at an earlier hearing, admitted they had been taking drugs, including "purple hearts" for twelve months, were placed on probation for two years when they appeared on remand at Halifax borough court, on August 20. Two days previously Arthur Broadbent, Hartley Street, Halifax, and Raymond Lesley Smith, Primrose Street, Halifax, were remanded on bail for a probation officer's report and pleaded "guilty" to breaking into the pharmacy of Gibson Dixon, Ltd., Old Market, Halifax, and stealing tablets worth £1 2s. 6d. A probation officer told the court after the remand that he did not think that in either case there was any question of any serious addiction to drugs. The chairman told Smith and Broadbent: "We want to impress upon you how terrible this habit can become. It can ruin your whole lives. It is as well you have been caught at this early stage."

Illegal Possession

At Birmingham magistrates' court on August 20, Aston Alexander Kelly, 108 Ingoes Lane, Kirkby, Liverpool, denied that he travelled to Birmingham to sell "purple hearts" tablets. He pleaded guilty to having 185 such tablets in his possession. He was fined £50 and 81 days in prison in default. For the prosecution it was said that police officers, acting on information saw Kelly get off a train at New Street Station, Birmingham, and he went from there to Varna Road, Edgbaston. At premises there he was stopped by a police constable and the tablets were in his possession. Kelly told the officers: "I have a few myself. You know I am ill." Kelly was suffering from a heart and lung complaint and he had some yellow tablets in his possession prescribed for him by a doctor. But "purple heart" tablets had not been prescribed. "It seems he was coming to Birmingham to sell them at a profit. He says he paid £5 for them and could get £100." Kelly was reported to have had a previous conviction for having Indian hemp in his possession.

Hi-jacking Lorries

SENDING two men to prison for a year for attempting to take and drive away an articulated lorry and steal its £3,000 load of chemist's merchandise, and other offences involving a car, the chairman of the Highgate magistrates on August 18 said "You are both here really for planned crimes for hi-jacking lorries, which is going on much too much and is becoming not only a crime but a trade." Before the court William Arthur Toogood, 122 Holly Park Road,

Southgate, London, N.11, a casual labourer, and Alexander Beatts, 16 Roberts Road, High Wycombe, Bucks, a garage assistant, pleaded guilty to attempting to take away the lorry on August 13 at Bramber Road, North Finchley; attempting to steal a quantity of chemist's merchandise worth £3,000 belonging to Boots Pure Drug Co., Ltd.; and other offences concerning a Hummer car. A police officer said the merchandise was sent from a dépôt in Nottingham to a dépôt in London. The driver from Nottingham drove to Finchley and left the lorry, locked outside another driver's address. The Nottingham driver and the London driver both had keys for each other's lorry and the Nottingham driver took the London driver's lorry back to his dépôt and *vice versa*. On August 13 the daughter of a neighbour of the Finchley driver saw the defendants acting suspiciously. Beatts was seen forcing the door of the cab and Toogood then got into the cab and attempted to release the handbrake. The police were called and the defendants were detained. They later admitted having taken away a car from Wembley. The police officer said Boots Pure Drug Co. had no knowledge that loaded lorries were being left in the street overnight and since the offences had occurred the practice had been stopped.

COMPANY NEWS

Previous year's figures in parentheses

MONSANTO CHEMICALS, LTD.

—A first interim dividend of 5 per cent. (3½ per cent.) is declared. Net sales for half-year ended June 30 were £13,078,299 (£12,249,899 in equivalent period) and profit, £2,511,850 (£1,945,417). After estimated tax of £497,000 (£371,000) income is £868,142 (£479,499).

UNITED STATES BORAX & CHEMICAL CORPORATION.—The company has declared a quarterly dividend of 20 cents per share, plus an extra dividend of 30 cents per share, on its Common stock, making a total dividend of \$1.10 per share for the year ending September 30.

PARKE, DAVIS & CO., Detroit, U.S.A.—Mr. C. D. Smith has been appointed vice-president international operations in succession to Mr. W. R. Jeeves, M.P.S., who has retired. Mr. Smith, a graduate of Baylor University, Texas, will be responsible for directing the company's operations throughout the world, other than in the United States.

KODAK, LTD.—Mr. A. E. Amor was appointed a deputy chairman of the board on August 17. Appointed a director in 1946 and a deputy managing director in 1948, Mr. Amor recently completed forty-eight years' service with the company and has been manager of Kodak, Ltd. factories for twenty years. Consequent upon his new appointment, Mr. Amor relinquishes the office of deputy managing director but continues to be manager of factories.

JEYES GROUP, LTD.—Group net sales for the twenty-four weeks ended June 19 were £3,098,000 (against £2,964,000 in the corresponding period of 1964). Unaudited group net profits

before taxation amount to £207,000 (£181,000). The profit for twenty-eight weeks in 1964 was £211,000 before charging integration expenses of £32,000, and when adjusted to twenty-four weeks gives the comparable figure for 1964 of £181,000. The directors propose to pay an interim dividend of 2½d. per share.

GNOME PHOTOGRAPHIC PRODUCTS, LTD.—The profit last year arose principally from a larger sales volume, says the chairman (Mr. H. Loebstein). The company has not generally increased its prices over the past seven years but there is a limit to its ability to meet the ever-increasing raw material costs and the expense of public services, states Mr. Loebstein. As previously reported (*C. & D.*, July 24, p. 78), pre-tax profits increased from £128,203 to £145,341 in the year ended May 31.

ASHE CHEMICAL, LTD.—Group profits, before tax, increased from £83,000 to £94,000 for six months ended June 30. Due to seasonal factors, profits for the second half normally exceed those for the first half and provided trading follows the normal pattern the directors anticipate an increased final profit for 1965. Because of the "steady advance in profitability," and in order to reduce disparity between payments, the interim dividend is raised to 12 per cent. (from 7 per cent.), although the directors point out that it does not necessarily imply a total rate in excess of the 30 per cent. paid for 1964.

BORAX HOLDINGS, LTD.—Group sales increased from £11.07 millions to £11.74 millions in the three months ended June 30, compared with the corresponding 1964 quarter, but the trading surplus at £2.41 millions was down by £71,000. After heavier depreciation and interest charges, the group's net taxed profit for the quarter amounted to £893,000 (£905,000). The interim report states that sales of borax continued to run at a high level, but earnings of United States Borax and Chemical Corporation were down due primarily to "disappointing sales of industrial maintenance supplies where efforts to develop new markets have not yet been wholly successful."

IMPERIAL CHEMICAL INDUSTRIES, LTD.—The group are to make an issue of £50 millions 7½ per cent. Unsecured loan stock 1986-91 at £98 10s. for each £100 of stock.—Over 88,700 employees of the company qualified for the bonus in respect of 1964 under the company's profit-sharing scheme. The bonus amounts to £9,132,000, before tax (average per employee £103) which after deduction of personal income tax is £6,620,000 net (average per employee £75). The net bonus has been paid by the company to the trustees of the scheme who will use it to acquire £3,004,000 I.C.I. Ordinary stock to be issued by the company for that purpose out of its unissued capital.

PHOTOPIA INTERNATIONAL, LTD.—A final dividend of 13½ per cent. is recommended on capital increased by a one-for-five scrip issue, making a total equivalent to 17½ per cent. for the year to April 30 (against

14.6 per cent. previously). Turnover and profits were records despite many obstacles. Turnover for the first three months of the current year is running "satisfactorily ahead" of the same period last year, and subject to unforeseen circumstances, Mr. C. G. Strasser (chairman) feels confident about further growth in the future. Trading profit for 1964-65 was £172,303 (£140,059). After loss attributable to minority interests £5,090 (£2,788) and tax £49,300 (£67,750), the net profit attributable to the company was £92,948 (£52,723). Mr. Strasser has waived net dividends of £12,484 (£11,018).

DISTILLERS CO., LTD.—Although the immediate economic outlook at home is uncertain, the chairman (Sir Ronald Cumming) says the company's "very substantial stake in exports should ensure that results for the current year will be satisfactory." Group sales totalled £346 millions in the year ended March 31 (against £303 millions). Pre-tax profits amounted to £44.44 millions in 1964-65 (£38.95 millions) and the dividend is raised from the equivalent of 11½ per cent. to 12½ per cent. Of the profits, 77 per cent. was produced by the potable interests but if adjustment is made for the additional dividends received on trade investments connected with industrial business, the potable interests contributed 81 per cent. of the nominal income of the year. The year saw an increasing demand for the products of the chemicals and plastics group, which led to plants in many sectors being continuously operated at full capacity. As a result that group had another good year with substantially higher turnover and profits. As the legal proceedings brought against Distillers Co. (Biochemicals), Ltd., in respect of the sales of thalidomide products are still pending the chairman states: "that it is not appropriate to comment on the matter."

Voluntary Liquidation

F. STUART (CULLEN), LTD., chemists' sundries retailer, 38 Flixton Road, Urmston, Manchester. Liquidator: Leslie H. Shipton, 31 Lloyd Street, Manchester, 2.

PERSONALITIES

MR. PATRICK D. O'BRIEN, former chairman of Laporte Industries, Ltd., who is emigrating to Australia with his family, sailed from Tilbury on August 27. He is taking up the post of chairman of Laporte Australia, Ltd., and will be based at Botany, New South Wales.

DR. J. KAREFA-SMART has been appointed Assistant Director-General of the World Health Organisation. Dr. Karefa-Smart is a former Minister of Foreign Affairs of Sierra Leone. He received his medical training in the United States and from 1952 to 1956 served with the W.H.O. regional office for Africa. After leaving government service, he was appointed associate director of international health, and assistant professor of public health practice at the School of Public Health and Administrative Medicine, Columbia University, New York.



RETIRING: Mr. Fred Huntley, M.P.S. (left), Castle Eden, co. Durham, area manager of Riker Laboratories, retired on August 13. Prior to joining Riker in 1953, Mr. Huntley had his own pharmacy business in the North-east. He is seen here with Mr. J. A. Sumley (managing director, Riker Laboratories) at a luncheon given in Mr. Huntley's honour.

BIRTHS

KERFOOT.—At St. Mary's Hospital, Manchester, on August 20, to Mr. and Mrs. Leigh H. Kerfoot, 71 Oakdale Drive, Heald Green, Cheadle, Ches, a son (Thomas Matthew).

MARRIAGES

HEALY-CLARKE.—At St. Leonard's Church, Seaford, Sussex, recently, Michael Frederick Healy to Elizabeth Harding Clarke, M.P.S.

DEATHS

BIRKBECK.—On August 10, Mr. Alexander Stanton Birkbeck, Chesney Wold, Dunholme Road, Scothern, Lincoln. Mr. Birkbeck qualified as a chemist and druggist in 1906 and retired in 1961.

BRADSHAW.—On August 5, Mr. Alfred George Bradshaw, M.P.S., 41 Grange Road, Ampthill, Beds. Mr. Bradshaw qualified in 1919.

BROWN.—On August 8, Mr. John Stephen Brown, 158 Great Northern Road, Aberdeen. Mr. Brown qualified as a chemist and druggist in 136.

COSGROVE.—Recently, Mr. James Francis Cosgrove, L.P.S.I., Main Street, Mohill, co. Leitrim. Mr. Cosgrove who qualified in 1946 had been manager of O'Malley's Medical Hall, Mohill, for the past eleven years. Prior to that he had been attached to Boles' Pharmacy, Emmet Road, Dublin, for a number of years. He was a native of Lisnaskeagh, co. Fermanagh, and was educated at St. Michael's College, Enniskillen, taking his pharmacy course at Mount Street, Dublin. After qualifying he served for a time in a Dundalk pharmacy before going to Dublin. He was brother of Mr. Terence J. Cosgrove, who is attached to McGrath's pharmacy, Aungier Street, Dublin.

CONLAN.—On August 19, Mr. Michael Joseph Conlan, M.P.S.N.I., 21 Manor Street, Dublin. Mr. Conlan who qualified in 1931 was attached to the pharmacy of the late Mr. F. J. Fitzpatrick, Stoneybatter, Dublin, for over twenty years before opening a partnership pharmacy, M. J. Conlan & Co.,

Ltd., at Manor Street, which he continued to operate up to his death.

DRAPER.—On August 20, Miss Dorothy Draper, 19 Townsville Road, Bournemouth, Miss Draper qualified as a chemist and druggist in 1917 and retired in 1963.

HAYLOCK.—On August 7, Mr. John Owen Haylock, F.P.S., Shepherds Cottage, East Shalford Lane, Guildford, Surrey. Mr. Haylock qualified in 1913.

HEYWOOD.—On June 19, Mr. Sidney Heywood, M.P.S., 8 Overbrook, Evesham, Worcs. Mr. Heywood qualified in 1912.

KENMARE.—On June 21, Mr. William Gerard Kenmare, M.P.S., 71 Fleswick Avenue, Woodhouse, Whitehaven, Cumberland. Mr. Kenmare qualified in 1953.

MOORE.—On August 3, Mr. Joseph Rudyard Moore, M.P.S., 335 Greenford Road, Greenford, Middlesex. Mr. Moore qualified in 122.

MORRICK.—On August 8, Mr. David Morricks, M.P.S., 43 Rosehill Avenue, Horsell, Woking, Surrey. Mr. Morricks qualified in 1931.

MYERS.—On August 15, Mr. Sidney Israel Myers, managing director, S. I. Myers, Ltd., 80 Old Street, London, E.C.1.

PARK.—Recently at his home in Glamorgan, Dr. Alistair Henry Park. Dr. Park, who qualified as a pharmacist in 1931, was a member of the Aberdeen firm of John Park & Son, Great Northern Road, Aberdeen, before graduating in medicine at Aberdeen University in 1954.

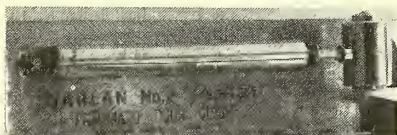
MAKER'S ACTIVITIES

Boosting Pyrethrum Production.—An article in last week's *CHEMIST AND DRUGGIST* (p. 181) described how Stafford Allen & Sons, Ltd., were investing £250,000 in a venture to establish a pyrethrum industry in collaboration with the Administration of the Territory of Papua and New Guinea. Whilst tracing the background history to the project the third paragraph inadvertently said that Messrs. Stafford Allen had, in 1960, been invited to look into the possibility of growing pyrethrum commercially in North Borneo. It should, of course, have read New Guinea. We regret any embarrassment caused to the Administration and Messrs. Stafford Allen by the mistake.

Historical Exhibition in Edinburgh.—For the first week of Edinburgh Festival, Allen & Hanburys, Ltd., had their "250 Years in the service of Medicine" exhibition on view in Adam House, Chambers Street. The display was built around a mock-up representation of the original shop opened in Plough Court, London, by the originator of the firm, Sylvanus Bevan in 1715. Some of the early letter books and prescription books were there to read and the early remedies on show included ostrich egg-shell (to be burned and rubbed in vinegar to treat impetigo); wolf's teeth (powdered as a cure for pleurisy); and wood lice (taken for jaundice and asthma). Old surgical instruments and a range of modern medicines were also on show.

SHOPFITTING NOTES

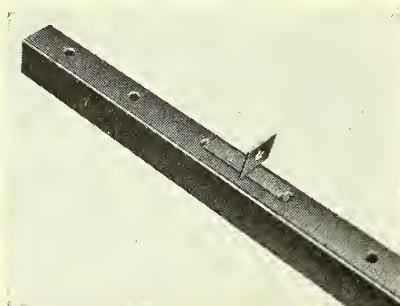
Automatic Door Closers.—Two new automatic door closers (a light-duty and a heavy-duty model) that also act as door stops have been introduced into the United Kingdom from Australia by Thomas Budden, Ltd., Sidcup, Kent. They work on a pneumatic air check principle. Their closing speeds may be



regulated, and each is fitted with a door-stop washer for holding a door open in any position up to 90°. The Premier Warlan No. 2 is actuated by a strong spring, the tension of which is variable to cater for the different weights of doors. Like the other models, its cylinder, approximately 1 ft. long, travels on a rod that pivots from the door frame as the door is opened and closed. The valves at each end of the cylinder are made of plastic to facilitate easy servicing. The Lane door closer, for lighter use, is in metallic grey finish. The model incorporates a patented bracket for mounting to the door.

New Constructional Units.—Dexion, Ltd., Empire Way, Wembley, Middlesex, have added a perforated tube to their Speedframe square-tube construction system. Available in both black and grey, it is offered for use in window displays, storage racks and counters, wherever, in fact, adjustability at low cost is a key factor. The tube itself is of 1-in. diameter, 18-gauge cold-rolled mild steel punched on one face with $\frac{1}{2}$ -in. diameter holes at 2-in. centres. Adjustable shelf brackets that drop easily into the perforations of the tube

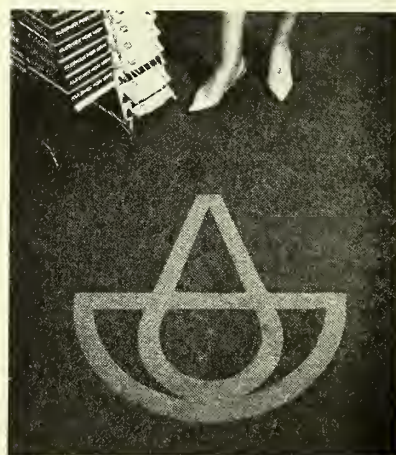
are also supplied; they are drilled with one $\frac{3}{16}$ -in. hole to make it easy to



screw the shelf in position if desired. With the quick and simple adjustment offered by the new perforated Speedframe, its use in display, storage and shopfitting should become even more extensive.

Standardised Counter Units.—The Interplan series of counters of Rud-duck & Co. (Shopfitters), Ltd., 70 City Road, London, E.C.1, is based on a single standard chassis consisting of two ends and a platform rigidly jointed together. The ends are constructed with a laminated board panel veneered sapele mahogany externally fitted within a welded mild steel frame which also forms the legs. The metal work is stove enamelled gun metal grey crackle finish and the legs are fitted with adjustable feet. The platform consists of a laminated board base supported on a mild steel frame and finished at the front with a narrow plinth faced with matt black plastic. Additional metal trim, such as glazing bars supplied in the alternatives, is of polished aluminium. An illustrated catalogue is available from the company.

Low-cost Displays.—The Abstracta construction system which has been in extensive use in the United States and Europe, is now being offered in the United Kingdom. It consists of rigid steel tubes (of 13 mm. or 19 mm. diameter) in a range of lengths in chrome or matt black and a complete range of matching connectors with from two to six arms that fit together rapidly to form anything from simple counter displays to most complex exhibition structures. A full range of timber, metal and glass shelving and other accessories complete the system. Abstracta is being marketed in the United Kingdom by Abstracta Construction, Ltd., 20 Peel Street, London, W.8.



ON THE CARPET: An attractive application of the mortar and pestle symbol of Barnes The Chemist, Knightsbridge, London, S.W.1, is in the carpet on the pharmacy floor. The symbol, light grey on the anthracite grey Tapisom nylon carpeting was inserted in a single laying operation. Etici, Ltd., 78 Mount Street, London, W.1, distributors of Tapisom, report a growing demand for symbols to be incorporated in shop and office flooring.



SHELVING THE DISPLAY PROBLEM: Display of many small items so that they are easily seen and just as easily accessible, as they must be in a pharmacy, calls for display methods that are adjustable to suit individual requirements and can be rearranged. The pharmacy of Mr. S. Frankel, 178 Jamaica Road, London, S.E.16, was fitted out by Myers of Old Street with Tebrax aluminium shelving system for storage and display. The system, which can be either wall-mounted or free-standing, comprises adjustable brackets 6-24 in. long in uprights of slotted U-channel. Though capable of supporting considerable weight, the brackets are neat and inconspicuous in use and enhance, rather than detract from, the display. The shelves are in six standard finishes: Industrial (mill), satin (matt), polished aluminium self-colour, and anodised black, gold and silver. Tebrax is manufactured and marketed by Tebrax, Ltd., 161 Borough High Street, S.E.1.

Emergency Lighting.—An emergency lighting installation to overcome hazards following electricity supply failures has been introduced by Ray-O-Vac (U.K.), Ltd., 363 Oxford Street, London, W.1. The units operate immediately, by means of a switch device, in the event of any failure. Lighting is instantly restored at points at which constant illumination is essential. In situations in which a costly major emergency lighting plant would not be justified and full normal lighting standards are required to maintain security and safety, the emergency lighting units provide an adequate safeguard. They are simple to install. The light has an extra-powerful beam, making it unnecessary to install it close to the point to be illuminated. It is operated by a long-service 6-volt steel-clad dry battery, and the unit may be plugged into any regular socket. If installed on a lighting circuit, it also operates in the event of a "fuse." The system is not suitable for use with d.c. power supplies. Cost of each unit is £7 10s. complete with flex and ready for installation.

NEW PRODUCTS AND PACKS

PHARMACEUTICAL SPECIALITIES

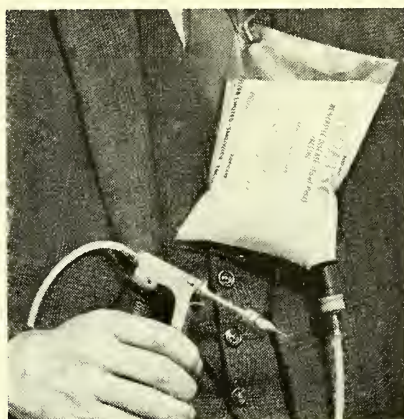
Cellophane Strips.—Nicholas Laboratories, Ltd., 225 Bath Road, Slough, Bucks. announce the introduction of a new pack for their Polycrol tablets. The pack has been designed for ease of dispensing and consists of ten cellophane strips each containing ten tablets.

With Folic Acid.—Coates & Cooper, Ltd., Pyramid Works, West Drayton, Middlesex, are to introduce Plesmet F.A. tablets. Each product contains the equivalent of 50 mgm. of iron (similar to Plesmet), and 2.5 mgm. of folic acid. The company state that the product is being introduced (on September 1) in view of the increasing amount of folic acid prescribed with iron for women in the last three months of pregnancy. Packs are containers of 100 and 1,000.

Tablet Speciality.—H. N. Norton & Co., Ltd., 19 Queen Street, Glasgow, C.I. are introducing on September 1 Paragin tablets, indicated for headache, influenza, neuralgia, neuritis, dysmenorrhoea and rheumatic conditions. Each tablet contains 400 mgm. of paracetamol, 6 mgm. of codeine phosphate, 80 mgm. of caffeine and 5 mgm. of phenolphthalein. Recommended dosage is two tablets every four hours. Paragin tablets are supplied in dispensing packs of 100 and 500.

Oral Cholecystographic Medium.—Pharmaceutical Specialities (May & Baker), Ltd., Dagenham, Essex, announce that their oral cholecystographic

ditional glass bottle for Endeovac fowl pest vaccine with a new plastic sachet



containing 500 and 250 mil. The pack incorporates a plastic neck sling for the vaccinator. Other advantages: non-breakable, light and non-cumbersome; less storage space needed.

FOOD

Appetite-suppressants.—A new type of slimming biscuit is being added to the Trimetts range by Universal Laboratories, Ltd., Sandwich, Kent. Tri-



metts Trimmers are appetite-reducing biscuits designed to help dieters to slim with reduced meals of conventional food. "Hunger has always been the main adversary of persons trying to lose weight, and now by eating two or three Trimmers before meals, appetites can be kept within bounds." Trimmers can also be eaten between meals to keep hunger pangs at bay. Trimetts Trimmers are supplied in 2-doz. outers.

COSMETICS AND TOILETRIES

On Test in the West.—Rayette Beauty Products, Ltd., are test marketing in the Westward and Border television areas a new and quick-drying aerosol deodorant Rayette. Selling agents in the test areas are Chemist Brokers, Ltd., Crown House, Morden, Surrey.

Lightener and Conditioner.—The Toni Co., 215 High Holborn, London, W.C.2, appreciating that one of the main problems for those women wishing to lighten their hair is the difficulty of maintaining excellent hair condition, have now introduced Toni Creme hair lightener which both lightens and brightens the hair and can be used to lift the natural colour by a shade or two or, by repeat applications, by many shades.

Unique Dental Preparation.—A new all-purpose denture-cleanser is being introduced by Universal Laboratories, Ltd., Sandwich, Kent. Dentifresh is claimed to be the first to be specially prepared for cleaning both dentures and natural teeth. The company believe



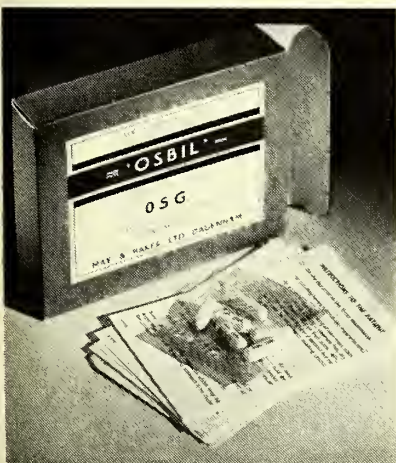
that the main market for Dentifresh lies in the 53 per cent. of the population in the U.K. who wear dentures. Its dual purpose will appeal particularly to those 18 per cent. who have partial dentures and natural teeth. Two special ingredients have been used to make a superior denture cleanser, which can also be used for natural teeth without risk of harming gums or the sensitive tissues in the mouth. Independent tests at a London dental school, and in the laboratory, have proved the effectiveness of Dentifresh in the cleansing of dentures. The product is being launched into both the tooth-paste and denture-cleanser markets, at present worth about £20 millions at retail selling prices. Dentifresh is available in two sizes—standard tubes, packed in outers of 3 dozen, and large tubes in 1 dozen outers.

SUNDRIES

New Shaver.—Philips Electrical, Ltd., Century House, Shaftesbury Avenue, London, W.C.2, have added the Diplomat shaver to their range. The Diplo-



mat incorporates a microgroove ring in both cutter heads, allowing deeper skin penetration and giving greater shaving efficiency without any risk of skin irritation. The body is in white and seal grey, and other features include "flip-top" cleaning, a voltage selector which provides immediate adaptability to any mains voltage in the world (100/130 v. and 200/240 v. AC/DC) a 6 ft. flex and a travelling case in dark grey with a red lining. It has been passed by the British Electrical Approvals Board.



medium Osbil brand ibenzamic acid, originally presented as tablets, is now to be offered in capsule form only. The white, opaque capsules each contain 0.5 gm. ibenzamic acid and are distinguished by the name Osbil in dark blue lettering on each half. They are supplied in cartons of 6 envelopes, each containing 6 capsules with instructions to patients. The presentation of ibenzamic acid in capsule form has been shown by clinical trial to improve further on the already good gastric tolerance to the medium. Dosage and administration remain unchanged.

VETERINARY PRODUCTS

For Multiple Dosing.—Pfizer, Ltd., Sandwich, Kent, are replacing the tra-

TRADE NOTES

Now Nationally Advertised.—Kaputine, Ltd., Boardman Street, Oldham, Lancs, are now promoting Bellair products on a national scale.

Mystery Shoppers.—Nicholas Products, Ltd., 225 Bath Road, Slough, Bucks, list elsewhere in this issue the £10 and £5 winners in their Kwells and Feminax "mystery shopper tour" scheme.

Discontinued.—HARVEY PHARMACEUTICALS, Sandwich, Kent, announce that they have withdrawn Methral-N from their range of products. Plain Methral ointment 0.1 per cent. in tubes of 10 gm. continues to be marketed.—GEIGY (U.K.), LTD., Pharmaceuticals Division, Wythenshawe, Manchester, state that packs of ten 25-mgm. ampoules of Tofranil are no longer available.

New Buying Terms.—New direct buying terms for retail chemists have been announced by Merck Sharp & Dohme, Ltd., Hoddesdon. As from September 1 a single direct parcel of £50 net or over, excluding purchase tax, will be introduced and all other existing direct buying terms cancelled. The new £50 parcel is to be subject to an additional discount of 7½ per cent.

On General Sale.—Fassett and Johnson, Ltd., 86 Clerkenwell Road, London, E.C.1, distributors of Lucien Lelong perfumes, state that it has come to their attention that many buyers think that Lucien Lelong perfumes are supplied only to selected chemists or stores. The company wish to point out that it is their policy to sell the perfumes to all chemists and stores who wish to purchase them.

More Champagne.—The nation-wide personality promotion for Sea Witch hair colouring, organised by Elida, Ltd., 43 Portman Square, London, W.1, is reported to be extremely successful. "Elida Girls" calling on chemists and giving prizes of champagne for point of sale displays have called for further supplies. So popular with the chemists have these displays proved to be that it has been necessary to mount a special operation to keep the girls supplied with stocks of champagne.

Contract Packaging.—B. & P. Laboratories, Ltd., 9 Packington Road, Acton, London, W.3, offer to formulate, prepare and package products in hard or soft gelatin capsules. Their service includes capsulating oils and suspensions by the Globex process producing seamless hermetically sealed capsules. Hard shell capsulating of

powders can be undertaken in colours to customers' requirements. The company also have many types of such capsuled preparations available from stock. They can also offer mini capsules of ultra-small size—1 to 10 mgm. Details of specialised applications are available on request.



The appropriate DOP shampoo is quickly noted by the initials on the pack. N for normal hair, G for greasy hair, S for seurf and dandruff. Marketed by Golden, Ltd., Berkeley Square, London, W.1.

Anionic Surface-active Agents.—Five differing ranges of anionic surface-active agents with applications in the pharmaceutical, cosmetic industries are listed in a new booklet by Glovers (Chemicals), Ltd., Wortley Low Mills, Whitehall Road, Leeds, 12. One of the ranges of products, Solumin TnS series, is used as shampoo bases, in bubble bath formulations, as all-purpose cleaner components, and, additionally, for the manufacture of liquid soaps and also surgical scrubs in the presence of disinfectants. Another series is suggested for emulsion polymerisation formulations and as pigment dispersing agents.

To Distribute in Europe.—Because of their large connection in the field of pyrethrum based insecticides, Cooper, McDougall and Robertson, Ltd., Berkhamsted, Herts, have now taken over the sole distribution in most countries in Europe of pyrethrum extract from the Pyrethrum Marketing Board of Kenya. The headquarters of the Pyrethrum Bureau have now been transferred to 34 High Street, Berkhamsted and contact will be maintained through that office with other Pyrethrum Board offices in Australia, the United States, and Malaysia. Dr. E. A. Baum has been appointed as manager of technical operations on the Continent, with headquarters at the offices of Cooper, McDougall & Robertson, Ltd., in Paris.

Repeat Offer.—Following the success of their spring "50 extra tissues free" offer on Kleenex tissues, Kimberly Clark, Ltd., Larkfield, Maidstone, Kent, are launching a similar offer in their autumn sales salvo. Timed to take advantage of the seasonal increase in tissue buying, the offer will run alongside Kimberly Clark's Autumn Trade Deal. The offer represents a free bonus to the consumer of 33 per cent. It is available in the 150's regular pack in all colours, while stocks last. Packs are to carry an announcement of the offer on all panels, clearly stating the quantity of extra tissues, and a full colour showcard is being produced for promotions at point of sale.

Bonus Offers

ALLEN & HANBURY, LTD., London, E.C.2. Allenbury's pastilles, 6 dozen 2 oz. tins, invoiced at 11/12ths of trade price. Atomol, 24 at 11/12ths trade price, 48 at 10/12ths trade price, and 144 at 9/12ths trade price, till Saturday, October 16.

R. MILLNER (CHEMISTS' SUNDRIES), LTD., 486 Stretford Road, Manchester, 16. Beauty, New Satin Dawn and Don Mac hair sprays, Millner's cotton wool. Thirteen invoiced as 12.

Bank Holiday Closing

NORMAL closing period of manufacturers at August Bank Holiday weekend is from closing time on Friday, August 27, until Tuesday morning, August 31. The following company has notified that their products will be available from John Bell & Croyden, 50 Wigmore Street, London, W.1, and in Northern Ireland from J. & W. C. Gaw, Belfast.

A. WANDER, LTD., 42 Upper Grosvenor Street, London, W.1.

The following companies have stated that their products will be available from John Bell & Croyden.

MARTINDALE, SAMOORE, LTD., Salem Road, Queensway, London, W.2. (Open as usual 8 a.m.—12 noon, Saturday, August 28).

PAINES & BYRNE, Ltd., Perivale, Greenford, Middx.

PHARMACEUTICAL SPECIALITIES (MAY & BAKER), LTD., Dagenham. Order department closed from noon on Friday, August 27.

UPJOHN, LTD., Fleming Way, Crawley, Sussex.

The following have announced that they will be closed for business on Monday, August 30.

CIBA LABORATORIES, Horsham, Sussex.

A. H. ROBINS CO., LTD., Foundry Lane, Horsham, Sussex.

UNICHEM, LTD., Crown House, Morden, Surrey, and the Walthamstow and Nuneaton branches.

Christmas Showrooms

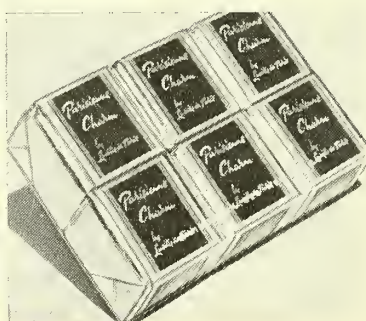
THE following have been notified:—COTY (ENGLAND), LTD., Coty, 239 St. Vincent Street, GLASGOW, until September 3.

DUBARRY, LTD., St. Enoch hotel, GLASGOW, August 30-September 3.

GOYA, LTD., North British hotel, GLASGOW, August 30-September 3.

PHILLIPS SCOTT & TURNER CO., St. Enoch hotel, GLASGOW, C.1, August 30-September 4.

UCAL (BROOK PARKER), LTD., Grand hotel, GLASGOW, August 31-September 1.



Left: Gaul of London pressurised air freshener and fly killer. Right: Parissienne Chaim bath cubes. All three products are by F. M. Langford, Ltd., 40 Wellesloe Square, London, E.1.

Testing Drugs for Safety

AN INDEPENDENT SERVICE TO INDUSTRY

THE knowledge that drugs can have toxic as well as beneficial effects does not stem, as might appear from the newspapers, from thalidomide. Pharmacists know well that tests for such effects have long been part and parcel of the search for therapeutically active compounds.

What has, however, developed remarkably in recent years is the means whereby new compounds are screened for undesirable effects. To such a degree has progress been made in that field that today few drug manufacturing companies are able to assemble and retain on a full-time basis all the necessary facilities and technical staff or to accumulate the "know-how" involved in them. An opening has thus been created for organisations prepared to undertake long-term toxicity testing on behalf of others. Such an organisation is the Huntingdon Research Centre, Huntingdon.

Origins of the Centre

The Centre started in the early 1950's as a private consultant and research practice, concentrating mainly on nutritional studies. In 1959 it was acquired by the newly-formed Nutritional Research Unit, Ltd., under whose ownership it functioned as an independent body until December 1964, when its shares were taken up by Becton Dickinson & Co., Rutherford, New Jersey, U.S.A. The Centre continues to be operated by its British management, with Alastair N. Worden (son of the joint founder) as chairman (see *C. & D.*, December 19, 1964, p. 605), and the association with the American company has enabled financial resources to be strengthened without interfering with the Centre's professional independence.

At present about 25 per cent. of the work carried on at the Centre is for British manufacturers, 25 per cent. for American concerns, and the remaining 50 per cent. for European industry. Services offered to industry cover the whole field of toxicological research, investigation of the efficacy and side effects of drugs, pesticide analysis and the examination of food additives and food products, and in those fields the Centre is probably the largest independent organisation in Europe, and thought to be one of the largest in the world.

A client may bring the Centre into his testing procedure for a new compound at any stage in development. Thus if he has few facilities of his own, the Centre will screen the compound for the whole range of pharmacological activity, investigate its toxicity and, if satisfactory, take it through its clinical trials. More usually, however, manufacturers carry out their own screening and investigate the acute toxicity (i.e., the effect in animals of short-term high dosages) before handing the compound over for long-term administration at doses closer to the expected therapeutic level (chronic toxicity). The reports prepared on those

studies are used mainly to support submissions to the Dunlop Committee on Safety of Drugs or the American



Alastair N. Worden

Food and Drug Administration. For those purposes the vast experience of the Centre's staff can be invaluable to the client, who may be saved the cost of unnecessary tests or additional submissions if the correct "protocol" of testing is undertaken from the start.

Proof that such a service is of substantial benefit to manufacturers is to be found in the fact that 80 per cent. of the Centre's clients are large companies, including most of the familiar names in the British and continental pharmaceutical industry.

The difficulties that would face a small laboratory carrying out long-term tests may be seen from the nature of the tests. For new drugs two tests are normally required—one with a rodent (usually rats), the other with a non-rodent (usually dogs). The rodent test may involve four groups each comprising up to fifty male and fifty female animals. Three groups are given the drug at various dose levels, while the fourth serves as a control. The top dose level is that at which the drug shows some evidence of toxicity. The low dose is that equivalent (in mgm./kilo) likely to obtain in practice in man, and the third dose is at an intermediate level that provides an appropriate "safety" margin.

Six-month Studies

Long-term tests on each compound are continued for six months or more, during which period food consumption and body weight are recorded, and urine analysis and blood haematology and biochemistry are regularly performed. In certain circumstances liver or kidney function tests may be carried out. There is also continuous observation of the animals' clinical condition and abnormal behaviour is noted. At the end of the period a complete autopsy of top-dose level and control groups is performed and extended as required to the lower-dose levels. An evaluation of all findings is provided to the client by the pathologist and toxicologist. Similar tests though on much smaller numbers of animals are carried out on the non-rodent. Currently the trend is towards more (and more elaborate) tests on fewer, higher, animals kept in ideal conditions, and the Centre has that tendency in mind in its work on primates. In the future all information relating to the general health of the animal, such as blood pressure, electrocardiogram, histochemistry, and eye

changes, is expected to be used in the assessment of toxicity. Though manufacturers need to await completion of the tests before the full-scale clinical trials are started, "volunteer" trials may commence after satisfactory interim reports.

In addition to the investigation of drugs, which forms the bulk of the Centre's work, many other groups of compounds require testing for toxicity. A great deal of work has been undertaken on pesticide residues, particularly new compounds, and the work requires, in addition to the rodent and non-rodent species (usually studied for two years), tests upon fish and wild life (Japanese quail, mallard duck and pheasant are studied). Toxic effects of cosmetics (particularly sensitivity reactions) the safety of extractable materials in food wrappings, and the estimation of antibiotics in milk are examples of other studies. Many research papers have been published.

So extensive a service (at any one time the Centre may have as many as 100 projects on hand) demands important facilities. At present the staff comprises about 190 full-time personnel, plus many part-time consultants and advisers. The façade of headquarter's building, Cromwell House, Huntingdon, cloaks a hive of industry. Besides the administrative departments, the building houses a number of laboratories, each crammed with time- and labour-saving apparatus. Out-buildings provide additional laboratory accommodation and house the smaller animals. A mile-and-a-half away at Hartford a field station provides space for sheep and cattle. At Hartford, too, is the main dog colony, comprising about 500 animals, and the pathology department (the department moved to Hartford when its expansion could no longer be contained at Cromwell House). Though at the time the only available accommodation at Hartford was a 140-ft. long corridor previously used for storage, the building has in practice proved ideal for the work. With benches down one side only, a "flow-line" of slide preparation — staining — examination — records, has been easily established. The arrangement has, in fact, been proved so successful that others are finding it worth adopting. The department produces over 100,000 slides a year, covering histology, histochemistry (about thirty enzyme systems are investigated) and the work involves some basic research) and fluorescent microscopy (which often assists in finding drug deposits in the tissues).

New Accommodation

Space difficulties experienced in all the laboratories are being tolerated for the time being, because there is the prospect of ample accommodation at a new 100-acre site at Alconbury, five miles from Huntingdon, where a new research centre is being established. Already an existing building has been converted into quarters for dogs and



Left: Cronwell House, hub of the Huntingdon Research Centre's activities. Right: "Production-line" preparation of pathological slides at Hartford.

primates, and will become the primate laboratory when a new dog building has been erected. The new building will enable the total accommodation for dogs to house up to 1,500 animals on long-term feeding or other studies. Another building will house some 12,000 "specific-pathogen free" rodents. Experimental quarters for rabbits, calves, pigs and beef cattle, as well as poultry, are at present under construction. New biochemistry and haematology laboratories, and laboratories for residue analysis together with further units for entomology and microbiology, are in the process of being occupied. On an adjacent site,

but separate from the Huntingdon Research Centre, Carworth (Europe) is being established, with Dr. Lane-Petter (until recently director of the Medical Research Council's Laboratory Animals Centre) as its director. It will be used for the commercial and experimental production of rats and mice, both "specific-pathogen free" and germ-free.

Necessarily incomplete, this brief outline of the Centre's work may serve to show what is involved in providing a specialist research service to industry. In view of the public interest in thalidomide, it is noteworthy that the Centre is thought to have

screened more drugs for teratogenicity than any other laboratory in the world. Clinical-trial facilities are at present being reorganised, but the Centre is currently able to call upon the services of hospitals and of fifty general practitioners. Among "side-lines" of the service is the extraction from animal urine of valuable biological materials such as glucuronides. Recently the Centre took under its wing (through purchase by Messrs. Becton, Dickinson) a pharmacological laboratory in the United States and two further laboratories in England (Avebury Research Laboratories and Bernard Hawley & Associates).

Correspondence

Letters when received must bear the name and address of the sender, not necessarily for publication. The Editor does not hold himself responsible for the views expressed.

Nalidixic Acid

SIR,—Early in 1965 the Committee on Safety of Drugs asked doctors to report on rashes, or disturbances of the central nervous system, occurring in patients who were taking nalidixic acid (Negram). The reports received following this request appear to confirm the first impressions that, although there seems no reasonable doubt that a causal relationship exists between the use of the drug and such reactions, the latter are transient and reversible. It is the view of the Committee that the fear of producing these reactions in some patients need not, in the present state of knowledge, deter doctors from prescribing this drug when it is positively indicated. Nevertheless, since some of the effects may be alarming to patients, doctors might care to warn them of their possible occurrence. When the reactions affect the nervous system they usually occur within half an hour of taking the drug and persist for two or three hours. Sometimes, however, they are first experienced after the second or third dose and increase in severity with subsequent doses. Visual disturbances, excitement, depression, confusion and hallucinations have been reported. Headache, giddiness, drowsiness, syncope and sensory disturbances have also occurred in a few instances. One patient had a grand mal attack which might

have been due to the drug. The exact incidence of reactions is difficult to assess but between May 1964 and April 1965 there were reported to the Committee 52 cases of skin rashes and 126 cases of reactions affecting the nervous system in patients being treated with nalidixic acid. Between January 1964 and February 1965 general practitioners alone issued approximately 77,000 prescriptions for the drug. The Committee would like to thank doctors for their help and acknowledge the co-operation of the manufacturers in the inquiry.

D. A. CAHAL, M.D.,
Medical Assessor,
Committee on Safety of Drugs,
London, S.W.1

Voting Away Liberty

SIR,—In reply to the letter from Mr. N. H. Radcliffe (*C. & D.*, August 14, p. 154), I would suggest that nobody is really interested whether or not he himself employs 16-year-olds to dispense, or whether his cosmetic assistants are sufficiently versatile to dispense. The unassailable and undeniable fact is that this occurs none too rarely owing to shortage of staff, economic considerations, and so forth. On a more serious note, Mr. M. Madge's letter (*C. & D.*, August 21, p. 176), whilst obviously being sincere, is completely erroneous in its basic conception. The pharmacists who voted at the Albert Hall for "Pro-

fessional ethics" voted away their freedom of initiative and purpose; they voted for a narrow, bigoted dictatorship decreed by an autocratic Society, against whose decision there is no appeal. Each man or woman has a right to run his or her life in their own fashion, so long as that does not run contrary to social rules. The doctrine "Do as I tell you, I'll do your thinking for you," smacks of totalitarian indoctrination not individual liberty; moreover, who is to define vague and nebulous terms like "traditional," "chemist only," "sanctioned by time"—terms that mean precisely nothing. Any pharmacist who voted for such empty and starry-eyed phrases at the Albert Hall voted for autocratic dictatorship. What is so tragic about a non-qualified manager being in supreme control of a store, so long as he does not interfere with the basic needs of dispensing? A retail chemist is and always will be, a shopkeeper first and foremost, and a professional man second, no matter what imposing and grandiose phrases are coined to the contrary.

H. D. JARDINE,
Stoke, Coventry

Poser Solution

ANSWER to last week's poser is:—
Tabs. Serpasil 0.25 mgm.

100

The CHEMIST AND DRUGGIST

For Retailer, Wholesaler and Manufacturer

ESTABLISHED 1859

Published weekly at

28 Essex Street, Strand, London, W.C.2

TELEPHONE: CENTRAL 6565

Pædiatric Doses

THE effective use of a drug is dependent upon a number of factors such as whether the drug is appropriately chosen, the idiosyncrasies of the patient, and the amount administered. When the patient is a child or infant then the problem of satisfactory dosage regimen becomes more difficult and over the years attempts have been made to rationalise the calculation of dosages in such cases.

Hitherto the establishment of an average dose for a child has been based upon doses applicable to an adult but it has been shown that such an approach is not without pitfalls.

The American Pharmaceutical Association has published a dosage and posology handbook, "Usual Doses for Infants and Children." The author, Dr. Harry C. Shirkey, as stated in the preface, appears to be "uniquely and eminently qualified in that he is a physician and pharmacist and an internationally recognised authority on pædiatrics." Dr. Shirkey criticises the use of adult dosages to determine dosage for children. If all the metabolic processes of adults, including drug metabolism, were identical to those in children, posology would be more easily handled, but children and adults differ in many ways. "As one goes down the age scale, the metabolic deficiencies associated with immaturity rise in importance." The author suggests that all drugs to be used for children should be adequately studied in each of several different age groups before clinical use. That is a tenet with which most would agree although we foresee difficulties in carrying it out. Dr. Shirkey notes that from careful clinical observation dosage schemes based on weight do not yield reliable results. A dosage range based on age also shows great limitation in view of the variability of weight even in normal children of a given age. Dr. Shirkey suggests that consideration should be given to development of the surface area concept as a valuable basis for determining drug dosage and fluid requirements, not only for children but for the entire post-infantile periods of life. Using the symbols S.A. to represent surface area in square metres and M² for square metres the concept may be expressed as:—

Patient's dose = S.A. $\times$ dose per M².

By using that formula Dr. Shirkey says both children and adults can share the same dosage method.

In the dosage posology handbook there is a nomogram for the estimation of surface areas having the usual components of height and weight and in addition

a scheme for the rapid conversion to surface area from weight alone. Dr. Shirkey admits that criticism of the surface area method of ascertaining doses has been made. There are claims that no method of calculating body surface is accurate enough to make it superior to weight as a unit for final estimation. However, Dr. Shirkey points out that "whether or not correlating dosage of fluids and drugs with surface area is mathematically valid, the use of surface area allows expediency and accuracy quite satisfactory for clinical use. The method facilitates simplicity in dosage and . . . general improvement in therapy."

Dr. Shirkey has undoubtedly made a valuable contribution to the problem of dosage in the younger patient by attempting to put it on a more rational basis. However, the very fact that some form of mathematical approach is necessary indicates that there is room for considerable improvement in the methods of determining child dosage. As already pointed out, the absorption, metabolism and fate of a drug in the infant in particular, may not correspond in any fractional way to its behaviour in an adult. Thus it behoves the manufacturer of a new drug likely to be administered to the young, to ensure that the utmost effort is made to discover the drug's exact metabolic pathway and to determine that that pathway does exist in the infant. A striking example of such a need is given by Dr. Shirkey, writing in the August issue of *Journal of the American Medical Association*, when he points out that because of an undeveloped glucuronide-conjugating enzyme in the liver, the infant less than one week of age may experience toxicity or death from the same dose of chloramphenicol that is insufficient to yield protective blood levels at even two or three weeks of age. Such discoveries should never be made by trial and error.

A PHARMACIST'S ANTHOLOGY BOASTED TRASH

From "The Borough" by George Crabbe

*BUT now our quacks are gamesters, and they play
With craft and skill to ruin and betray;
With monstrous promise they delude the mind,
And thrive on all that tortures human-kind.*

*Void of all honour, avaricious, rash,
The daring tribe compound their boasted trash—
Tincture or syrup, lotion, drop or pill;
All tempt the sick to trust the lying bill;
And twenty names of cobblers turn'd to squires,
Aid the bold language of these blushless liars.
There are among them those who cannot read,
And yet they'll buy a patent, and succeed;
Will dare to promise dying sufferers aid,
For who, when dead, can threaten or upbraid?
With cruel avarice still they recommend*

More draughts, more syrup to the journey's end:

'I feel it not;—' Then take it every hour':

'It makes me worse;—' Why then it shows its power':

'I fear to die;—' Let not your spirits sink,

You're always safe, while you believe and drink.'

How strange to add, in this nefarious trade,

That men of parts are dupes by dunces made.

CRY FROM THE HEART: "My daughter is 14 years old and for three months she's got a big cough and up to know is not gone yet and in her throat she make's such funny noises like a cat and she cannot sleep in the night because of her throat. She went to the doctor twice a week but he only gave her pills and nothing happened to let them noises away please think of some medicine you can give her because she can't stand it. Please give her such a strong medicine because all the other pills she got it never gone away. I thank you."—Note received by a North London pharmacist.

Modernising a Pharmacy—3

FITTINGS AND LAYOUT

Mr R. Clitherow, M.P.S., Liverpool, continues his discussion of practical points based on his own experience. The previous article was published on August 7.

SO far in these articles on modernisation of pharmacy premises I have dealt only generally with the subject. I now turn to look at the various fittings and their use to the best advantage. The lowest shelf on which stock is kept or displayed is the first to be considered, since it is the deepest from front to rear and has a bearing on gondolas, counters, etc., the dimensions of the shop layout as a whole being influenced by the depth of that shelf. The decision how deep to make the shelf depends on what it is going to carry. For practical reasons it should be used for the largest and bulkiest stocks. Not only does their size make the best use of the low position of the shelf, but also they are more easily handled in that low position than smaller merchandise. It is naturally an essential part of any modernisation to make life easier for both the assistant and the customer, and the serving from low down of small items such as hair grips would require bending over a further 18 in. or so than bulkier items may demand (the exercise may be all right for those wishing to reduce!). So the stock for the lower shelves will include paper handkerchiefs, sanitary towels, toilet rolls, nappies, etc. They will not, however, be enough to fill the bottom shelf all the way round the shop, so in fact some articles of less bulk, such as disinfectants and dressings (not bandages), may be added to make up the balance.

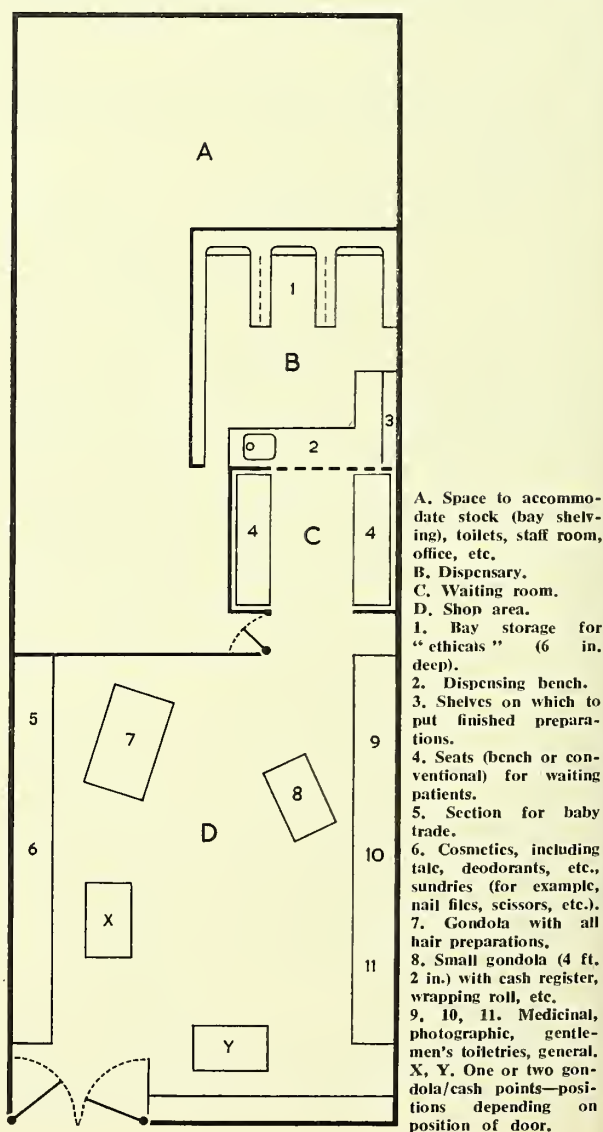
Tailored to the Customer

I myself have found that an 18-in. wide shelf is quite deep enough, and I would even suggest reducing it to 15 in., if only for the reason that the next shelf up is usually only 3 in. narrower, and the effect is that a person standing fairly close to the shelving will not see more than about the front 12 in. of the bottom shelf. Articles in the "dead" space beyond that depth are not seen and at that level, are difficult to reach. From the bottom shelf upwards the others are progressively reduced in depth, the top two or three being 6 in. deep (if they are any deeper the staff will be unable to reach the goods at the back of them). In what sequence the stock is arranged on the shelves is a matter of personal taste and opinion, but in my own view the baby foods (jars and tins) should be about 4 ft. 6 in. to 5 ft. 6 in. from the floor, and confined to two or three shelves. Customers being much readier to turn their head sideways than up and down, the breadth of shelving occupied by the baby foods should be enough to accommodate all the items required. Those foods are the "volume" sellers and should have the peak selling area in the baby section. The cereals may be arranged above them, as may the other baby items. Below the shelves of baby products the others may profitably be removed and the space used for stacks of sanitary towels and nappy tissues. Part 1 and other poisons should be on shelving that is not accessible to the public.

The layout of any particular shop will depend on so many factors that no hard-and-fast rules can be laid down, except that the "volume" sellers should be at the rear, though it is important to ensure that they are not obscured by other fixtures, etc. Placing them at the rear of the shop creates a double chance of selling the slower lines, for the customer sees them both when she enters and when she leaves. I myself try to put in their own groups cosmetics, baby goods, hair preparations (dyes, shampoos, sprays, conditioners, etc.), medicinal, household products (tooth-pastes, soap, disinfectants, etc.), products for men, and photographic supplies. Each member of the staff may then be given

various sections to look after, becoming in that way jacks-of-all-trades and masters of one or two.

In planning the dispensary I would advocate (if one is fortunate enough to control its physical size)—a square shape, with the work bench to the front (i.e., towards the shop), and the sink to one side of the opening into the shop (sinks are best out of sight). The back and side walls would be taken up with bay storage. The shelves should be 6 in. deep, thus readily accommodating either winchesters or, with step-up shelving, the small bottles. The bays may be stocked in sections (S.4 preparations, galenicals, proprietary and specialities, N.F. preparations, etc.). In the base of the work bench may be kept stock mixtures, bottle racks, etc. I have myself put the stock mixtures under the bench furthest from the sink, with the bottles in between,



in that way the dispenser picks up the stock and on the way to the sink (one stride) picks up the bottle.

The plan on opposite page may seem irrelevant to those whose premises are small, but my intention is to indicate, to those opening businesses in shopping-area developments (where dimensions are usually in the region of 20 x 60 ft.), some idea of how they may make use of the space. The plan is based on a layout that I am myself using.

At the rear I have left an undefined "blank" area, since the positioning of toilets, etc., is usually out of the hands of the tenant. The remainder of the shop layout has to be fitted in around it. The dispensary is best, as already stated, kept squarish. A long narrow one down the side raises problems of efficiency; the square layout gives space for the dispensing staff to work around one another, while no bottle in the dispensary is more than three strides away from the person dispensing. I have allowed for a small return on the dispensing bench for the scales, and on the wall at the rear of that "return" bench have placed shelving, to be used to hold what you will, but certainly to accommodate finished prescriptions. Outside the dispensary door I would have a bay of shelving 2 ft. deep to take spare bulk supplies of liquids, powders, etc., thus keeping the more unsightly bottles and packages out of sight but within easy reach.

The waiting room presents no difficulties except that a source of heat may be desirable. A bench seat is apt to be ungainly and to create difficulties over cleaning, while chairs can mark the wall unless a wooden strip is fixed on the floor in order to prevent the seat from being pushed too far back.

Although, as I have previously said, I have had little experience in installing shopfronts, I may point out that the positioning of the door cannot but have a marked effect on the layout, and for that reason I have not shown on the plan the position of the other counter/cashpoint that I would (and do) have. Nor, for the same reason, have I demarcated in detail the space for grouped items, 9, 10 and 11. The medicinals must be on the same side of the shop as the dispensary, so that the pharmacist can control their sale. If they are too near the door there may be grave risks of pilferage, so it is better to have them nearer to the dispensary. If, on the other hand, the door is central or on the cosmetic side, the medicinal shelving can run into the window, thus showing clearly to those looking in the window that the shop is a pharmacy. The counter may be put in front of the medicinals section to prevent public self-service. Off-centre and to the rear I would place a gondola 6-8 ft. long on which I would put all hair preparations. If desired, another smaller gondola/cashpoint could be put forward of it.

"Obvious" Details That Get Forgotten

What I have written may seem obvious, but it is amazing how, when the pressure is on, little "obvious" things are overlooked and—as you will find out if you miss them at the beginning—the cost of rectifying them later is sometimes doubled. The comments are based mainly on my own personal experiences, and I cannot, of course, guarantee that anybody else will have the same problems. I hope that my remarks will have forewarned to provide against faults before and not after the refit.

Two important topics remain to be discussed: the planning of labour at the time of refit and the variation in sales pattern. For those refitting on a budget, what I am about to say is, I think, economic sense, but there are bound to be those who will not be subject to the same financial pressures, and who will be prepared to pay for the easier way out. In modernising, there are a lot of things to do besides the actual installation of the new fittings—flooring, decorating, etc.—and those jobs take time. My method has been to plan the modernisation so that the fittings are installed in October, preferably the week after the end of British Summer Time. The effect of a newly refitted shop, freshly decorated, with a much higher level of illumination, is more

marked with the darker evenings, and you will then also probably be in a position to display one or two of your larger Christmas coffrets. Furthermore the shop will be at its best in the period of maximum customer throughput. If I am not proposing to put in a new shopfront I see to the windows during the spring and early summer (take the backs off, remake the beds, have the fuse box and gas meter moved if they are going to be moved). I now reconstruct the dispensary as completely as possible, and that involves, in some instances, setting up a dispensary temporarily down in the stockroom or behind a screen in the shop area. Where necessary, dust sheets are put up and the work proceeds during the day. When the dispensary is finished it is fitted out, all stocks set in order, and the dispensing done from there during the work on the shop, and of course, afterwards.

The big job of the shop refit may now be tackled in easy stages. First, condense the stock and bring it down as near the floor as possible. Most shops of pre-war fitting have wooden fixtures, which can usually be split half way up. That is done, and the fixture brought away from the wall and the two halves put back to back (like a gondola). That leaves the decorators and others free to work on the walls and ceiling. Plan the work so that the ceiling is decorated on the half-day or in lunch hours (not so difficult as you might think). The laying of the floor is best done at weekends especially the laying of tiles, since people walking on freshly laid tiles cause them to "ride," quite apart from the risk of treading all over the place the adhesive, which tends to creep through the joints. If sheet material is being laid it may be possible to complete the laying on the half-day, if the shop is not too large. To explain in detail how to plan the job is not, of course, possible. These are but suggestions to stimulate thought.

Timing and Cost

Turning now to the overall timing and cost of the job, I suggest you should adjust your modernisation according to the facts of your own business. Quite possibly your result will be different from mine, but at least you will have the satisfaction of knowing beforehand that you have planned correctly. A business with a turnover of £30,000 per annum might be expected to do a total (including value of scripts) of, say, £100 on Monday, £80 on Tuesday and £50 on Wednesday (half-day). If the decision should be, therefore, that it is impossible to stay open while the alterations are being carried out, and the question is whether to work at weekends or to close, the difference between the costs of the alternatives may be calculated from your estimates. The cost of closing for three days is the percentage gross profit you make on £230, namely between £60 and £80. If, however, your turnover is £15,000 a year, your lost profits are only £30-40. With careful planning you may be able to close from Tuesday lunch-time until Thursday morning, when your actual loss of profit will be only £20-25 in a £30,000-a-year business or £10-12½ in one of £15,000 turnover. I stress the point because I have heard it said more than once that a person would lose £x hundreds by closing. That is not true—it is only the profit that is lost, because the stock remains (unless the intention is to give it away!). A further advantage of closing in mid-week is that the staff can be given time off on Monday and Tuesday, and in return asked to come in on Wednesday evening to get most of the stock set out on the shelves, ready for the rush on the Thursday. On that day and Friday a lot of people (with pay packets) will come in to investigate the alterations. The extra trade obtained on the remaining three days then comes close to making up for the loss during the time closed (exceeding it if you close only on Wednesday morning). Points to remember if you decide to close are, first, to let your customers know well in advance (you owe it to them!) and then not to forget that you have a contract with the Executive Council, so let them know that you are closing. They will undoubtedly release you for the period you desire.

A "Not-out" Three Quarters of a Century

MR. HERBERT JACKSON, SANDIACRE, NOTTINGHAM, IS "STILL BATTLING" AT EIGHTY-NINE

IN recent months we have seen in print quite a run of pharmacists' experiences of half a century in practice, so it occurred to me that I might have something of interest to say over three quarters of a century—and "still battling." I was one of a family of eight; six boys and two girls. I was the youngest, and my mother (of blessed memory) was a widow by the time I was only three months old. It had been mother's hope and wish that one of my five elder brothers would have been a chemist. She succeeded at last with me.

I went as an outdoor apprentice to Mr. George Croft, Grimsby, a "pre-1868" man (before examination was in force). I was his first apprentice not to "live-in"—a concession because home was only a few yards away. Incidentally I was his last apprentice. His first—Mr. Brown—had set up in business only a few yards away, and at the time of his death, at 102, was the oldest living chemist.

After my apprenticeship, I stayed on for another three years. The hours in those years were long: 9 o'clock to 9 o'clock on weekdays and till 11 o'clock on Saturday, with no half-day. My senior apprentice, by much persuasion, induced Mr. Croft to agree that we should have an afternoon off in turn, returning at 6 o'clock. Later we got that changed to allow one of us to go at 6 and not return, a slight improvement.

Small Time for Study

Those long hours obviously left little time for study or recreation and, sad to say, I had not at that time passed the preliminary examination. For that we had to go to Hull. Apart from the long hours, etc., my biggest grumble was that when the technical school began evening chemistry lessons, which several of my friends attended, Mr. Croft stubbornly refused me permission to leave one hour earlier to go to the classes. Twice I tried to get him to change his mind, but his reply was "your place is behind the counter." So except for reading Attfield's "Chemistry," and making a materia-medica cabinet, I had to rely for my further information on making notes on everything in the B.P., 1898. We made practically everything on the premises: tinctures, infusions, ointments, etc. Making compound liquorice powder, for example, meant drying and powdering senna leaves, and preparing our own corn paint meant making collodion. We had much fun with the gun-cotton, testing it, etc. It was during this time, in 1898, that Tabloid products came into use. I remember well the effect it had, but Burroughs Wellcome & Co. tell me that the word Tabloid was, in fact, registered in 1884.

Leaving Grimsby, I went as junior assistant to Mr. Richard FitzHugh, 21 Long Row, Nottingham. The new post was a complete change from anything I had previously experienced. Here again there was no half-day closing, and someone was on duty at closing time every night. That gave me a chance for more study. The pharmacy had a large dispensing business, and even in those days we had prescriptions with long names. One I remember was for periodoparamyethloxeclinolin, a black powder that had to be made into pills. I have been unable to find any reference to it in the usual books, and wonder if anyone knows it?

There was no Dangerous Drugs Act then, and I could tell many stories of cocaine fiends ringing up in the small hours of the morning or sending the night porter from the "Black Boy" with a prescription having several items on



Mr. Herbert Jackson

it, but "give him this one (usually for cocaine), and he will see you about the rest in the morning." We had, I distinctly remember, one such addict who came to us, and to other pharmacists, and never wanted to pay. I knew that he had obtained supplies from three or four in the area of the Market Place. I have often said that the present generation should be thankful for D.D.A., despite the booking involved. I had been used to selling large quantities of laudanum and opium, but at 21 Long Row the addicts were kept away by the price.

I was allowed time off to go to the chemistry classes at the old Nottingham University at the time when Professor Kipping was the head, whom I was to meet much later at Bloomsbury Square at the examination. In addition I had, for a time, two evenings a week on chemistry with a pharmacist whose name, I think, was Bennett, and I worked in the back of his corner shop in Alfreton Road and he gave me as much time as he could spare with the shop open.

Then it became time for me to leave to try and get the coveted Minor. My first attempt, after studies at Watson Wills' Metropolitan College of Pharmacy, was a failure. Professor Kipping gave me a fearful dressing down on sulphur. For a time, during vacation, I did locum work at Highgate, living-in and studying as much as possible. Then I went to Davis's, Ludgate Hill, a small college, and from there I eventually qualified in January 1901.

I then went home, my first visit for a long time, and commenced looking around for a new post. I turned down two because the offered salary was so low but, looking through the *C. & D.* advertisements, I came across one calling for a young married man to manage a branch shop at Sandiacre. (I had been a regular reader of the *C. & D.*, making good use of its students' page, and I still look forward to its weekly arrival.) Though not then married, I made bold to apply, saying I expected to be married soon. I went over to see Mr. C. J. Wathes at Long Eaton, who had opened the branch, and we came to satisfactory terms. That was in February 1901, and he promised me a week's holiday in June so that I could get married and have a holiday. My wife and I were married on June 20, 1901, so that I have celebrated at Sandiacre, my Silver, Golden and Diamond Wedding Anniversaries.

Branching Out

I first entered the local parish council in 1920. I was its chairman three times and headed the poll at the elections. In 1931 I was elected to the board of school managers and later to the governors of the new secondary modern school. The work took up a large amount of time: appointment of teachers, interviews, dealing with clerical staff, etc. I also attached myself to the local Wesleyan Church, as it was then. An old friend of mine, with several shops in the Birmingham area, made me a tempting offer to manage a branch for him, but Mr. Wathes offered to take me into partnership and I accepted as I had to find but little money. We opened a new shop at Draycott, a branch at Sandiacre, then Mr. Wathes took over two businesses in Nottingham and now we had six shops, with the Nottingham shop on Carlton Road headquarters for supplying the other shops. For a long time I went there to supply the goods by carrier to the branches, and two or three times a week I would do a full round, much of it on a cycle.

Eventually Mr. Wathes, not being very robust, was advised to get into the country. The next important move was to sell the businesses, except that I was to have any one that suited me. I decided on Sandiacre for many reasons. I knew the people well, and in the fairly near future would be able to get a house away from the pharmacy. When we eventually dissolved partnership, I enlarged the

shop, taking out a wall and putting into the shop the living room behind. I installed an all-electric National till, and at the request of many residents also installed the telephone, one of the first, and made the shop a public call office.

I was one of the earliest members of Ucal, and did a big business with them, stocking every speciality. Like many others I am sorry that Ucal has fallen somewhat in its aims and ambitions. For many years about a dozen Ucalites from Nottingham and district went every Whit-sun to the annual meeting. Many made a week of it, and I spent much time in the Cotswolds. Also, for many years the Nottingham Ucalites came to my house for a garden

party, bringing their wives. Many names are remembered: Wood, Plattin, Turner, Meakin, Ball, Gill, Beilby, Shepherd, Wood, Frost, Prince, Smith, Godson and Green.

From 1918-57 I was a member of the Derbyshire Insurance Committee. In due course I was joined by Mr. W. H. Gunston, a pharmacist of wide experience, who will eventually take over the business, which has been made into a limited company for family reasons, with my daughter as one of the directors.

Now, still battling (not out 89) after three quarters of a century I am still going to business and, if not hitting many fours, at least getting a few singles.

NEW BOOKS

Drugs Doctors and Disease

BRIAN INGLIS. *André Deutsch, Ltd.*, 105 Great Russell Street, London, W.C.1. 8 x 5 in. Pp. 240 incl. index. 25s.

THROUGH its pre-publication reproduction almost *in extenso* in a Sunday newspaper and because of the controversial contents, the book has already received considerable attention from the lay Press. Those who know Brian Inglis from his television appearances will recollect his natural flair for quoting what someone has said or written, following with an aside which makes the quotation appear ludicrous. Such is frequently the case in this book. It was the American essayist Oliver Wendell Holmes who lived a century ago that wrote: "I firmly believe that if the whole *matéria medica* as now used could be sunk to the bottom of the sea it would be all the better for mankind and all the worse for the fishes." Mr. Inglis today says almost the same thing but at much greater length. Almost—because it is not only the pharmaceutical products that receive criticism but the manufacturers, too, are censured, particularly the American-owned companies. Their propaganda methods, the prices charged, the sales "gimmicks" (free golf balls to doctors, etc.) employed, the launching of new products before adequate testing, and many more, are dealt with. For his information the author has drawn heavily on evidence submitted to the Kefauver Committee in the United States.

After reading the book anyone not conversant with the British pharmaceutical industry might be forgiven for believing that no British company remained in the industry although Glaxo is referred to as having broken "with precedent" when launching Ceporin by "promoting it directly through the lay newspapers . . . before trials of the new drug had appeared in the medical journals." A brief mention is given to another British company (Benger Laboratories) in respect of certain advertisements for Imferon appearing in medical journals. Of Mr. Inglis' claim that too many brand names are alike, pharmacists will heartily agree. He adds: "What is remarkable is that there have not been more reports of mistakes due to confusion from this source." The explanation (not given) is that the chemist is there to stop mistakes; but Mr. Inglis gives his reason as "to some extent due to the fact that few of the mistakes are publicised."

The author quotes a contributor to the *CHEMIST AND DRUGGIST* (November 25, 1961) who said that the present flow of discoveries would not necessarily continue if patent protection were reduced. Mr. Inglis comments: "This bland assumption has continued to make its appearance in articles and speeches ever since." What he omits to mention is that the forecast by the contributor was borne out in fact and the rate of expenditure on research had by 1964 slowed down not only in Britain but the U.S. as well.

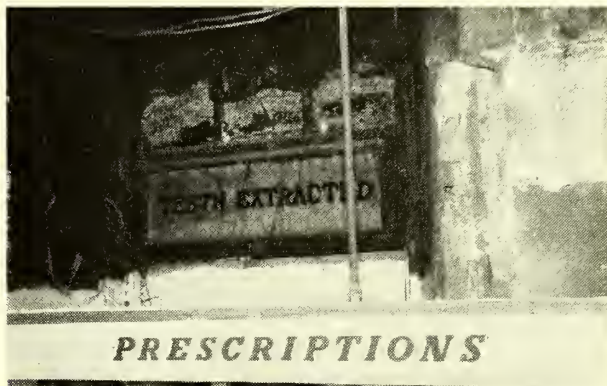
The author's dependence on American facts and figures because so little has been divulged in Britain, may well be a valid point but that is surely no excuse for copying their spelling of sulphonamides or of using the word "detail-men" for representatives when applied to the British market. No industry is perfect and there are "black sheep" within the pharmaceutical industry as in others. Even so, it must be conceded that there are products now available which cure diseases that a few decades ago were regarded as fatal. Some products are the outcome of manufacturers' research efforts but little or no mention of, and certainly no emphasis on, those products is given by the author of this book, whose title might more correctly have been "A Denunciation of Drugs and the Drug Manufacturers."

Onward from Galen

SIDELINES OF CURRENT COMMENT

★ ONLY THE NAME IS THE SAME ★

MODERNISATION has come to an old-fashioned pharmacy at 377 Norwood Road, London, S.E.27. Indeed, its founder, William Redpath, would no longer recognise his former surroundings, though he was in his day a go-ahead pharmacist and would probably have approved of progress. The old fixtures were taller than the new, and at one point their removal has revealed something hidden for years: A legend painted on glass, "Teeth Extracted." Mr. Peters, the pharmacist making the alterations, agreed that that was an interesting sidelight on the past, but . . . it has had to go.



"Redpath's" has been part of the scene in the West Norwood-Tulse Hill area for almost 100 years. William Redpath started there in 1870, retiring in 1940 when his son Douglas took over the business. William was aged 96, and had not only run a pharmacy for seventy years, but also a sub-post office for sixty-eight years and received a George V Jubilee Medal. His son Douglas soon went on to qualify as a doctor but he retains vivid memories of his remarkable father. William Redpath was short, stocky and energetic. He lived his life by the clock and was always strictly on time. He had two wives and nine children, of whom two sons became doctors, two were chemists and two dentists. Truly Victorian, he was a dominant character who never missed a day at business and never missed a point at business. He died in 1945 in South Africa, far from his family and the pharmacy he had founded many years earlier (and which continues under his name). He was born at Rothbury, Northumberland, "one of the Border breed who run a shuttle service between Scotland and England," but William was to come much further south when his apprenticeship with Mr. F. Schofield of Morpeth, ended. Schofield was both chemist and doctor, prescribing for farmers and supplying dips and various compounds for sheep. William worked for him from his sixteenth to his twenty-first year. In 1865 he bought a third-class ticket to London to work for a doctor in Roupell Park, Streatham. He acted as dispenser, accoucheur and general assistant (and attended post mortems) till 1875. By 1868 he had qualified as a chemist, and planned to set up his own business. Now only the name of the business recalls the long reign of its founder.

GUIDE TO NEW MEDICAMENTS

Information about proprietary products supplied principally on prescription. Reprints on perforated gummed paper for affixing to index cards are obtainable from the Editor. Notes on the products are given on p. 209.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, August 28, 1965.

INDERAL tablets and injection

MANUFACTURER: Imperial Chemical Industries, Ltd., Pharmaceuticals Division, Alderley Park, Macclesfield, Cheshire.

DESCRIPTION: Tablets and injection containing propranolol hydrochloride. *Tablets* available in strengths of 10 mgm. (red, oval, 8 mm. long, scored on one side and plain on the other) and 40 mgm. (red, round, 9 mm. diameter scored on one side with I.C.I. house-mark on the other). *Injection* supplied in 5-ml ampoules containing 1 mgm. per ml. Adrenergic β -receptor blocking agent.

INDICATIONS: Cardiac arrhythmias; selected cases of angina pectoris; phaeochromocytoma and hypertrophic obstructive cardiomyopathy.

CONTRAINDICATIONS: Cardiac failure without prior digitalisation; chronic bronchitis; asthma; pregnancy. (See manufacturer's literature.)

DOSAGE: ORAL. *Arrhythmias*: 10-30 mgm. three or four times a day. *Angina*: 20 mgm. twice daily for three days, thereafter 20-40 mgm. four times a day. *Phaeochromocytoma*: Pre-operatively 60 mgm. daily for three days, combined with an alpha-receptor blocking agent. Maintenance dose 30 mgm. daily in divided doses. INTRAVENOUS. *Conscious patients*: 3-10 mgm. at a rate of 1 ml per minute. *Patients under anaesthesia*: 3-5 mgm. at a rate of 1 ml per minute.

SIDE EFFECTS: Transient nausea, vomiting, insomnia, lassitude, muzziness and mild diarrhoea have occasionally been observed.

STORAGE: Ampoules should be protected from light.

NOTES: It is important to consult the manufacturer's detailed literature before commencing therapy with Inderal.

HOW SUPPLIED: Tablets in containers of fifty, 250 and 1,000. Ampoules in box of five.

SUPPLY RESTRICTIONS: Recommended on prescription only.

FIRST ISSUED: August 1965.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, August 28, 1965.

OSBIL capsules

MANUFACTURER: May & Baker, Ltd. DISTRIBUTOR: Pharmaceutical Specialities (May & Baker), Ltd., Dagenham, Essex.

DESCRIPTION: White, opaque, hard gelatin capsules, imprinted "Osbil" in dark-blue lettering on each half. Each contains 0.5 gm. of iobenzamic acid. Oral cholecystographic medium.

INDICATIONS: Radiographic demonstration of the gall-bladder and the extra-hepatic bile ducts, and as a test of gall-bladder function.

CONTRAINDICATIONS: Acute nephritis; gross renal insufficiency; uraemia, and acute disorders of the gastro-intestinal tract.

DOSAGE: *Adults*: Usually 3 gm., but in heavy patients, 4.5 gm. may be given. The required number of capsules should be taken with a draught of water after a light, fat-free meal during the evening before examination.

STORAGE: Should be protected from light.

NOTES: Presentation in capsule form has been shown to improve further on the already good gastric tolerance to the medium.

HOW SUPPLIED: In cartons of six envelopes, each containing six capsules with instructions to patients.

FIRST ISSUED: August 1965 (replacing tablets).

THE CHEMIST AND DRUGGIST Guide to New Medicaments, August 28, 1965.

SLOW-K tablets

MANUFACTURER: CIBA Laboratories, Ltd., Horsham, Sussex.

DESCRIPTION: Pale orange-coloured, sugar-coated tablets, $\frac{1}{8}$ in. in diameter, each containing 600 mgm. of potassium chloride in a chocolate-coloured slow-release wax core.

INDICATIONS: Prevention and treatment of potassium depletion, especially during diuretic therapy.

CONTRAINDICATIONS: Caution should be exercised in patients with advanced renal failure to avoid possible hyperpotassemia.

DOSAGE: The dose is determined by the physician according to the needs of the patient. Preferably administered after meals.

STORAGE: Should be stored in a well closed container.

HOW SUPPLIED: In pack of 500.

SUPPLY RESTRICTIONS: Recommended on prescription only.

FIRST ISSUED: August 1965.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, August 28, 1965.

PREGAMAL tablets

MANUFACTURER: Glaxo Laboratories, Ltd., Greenford, Middlesex.

DESCRIPTION: Brown, bi-convex, film-coated tablets, 10/32 in. in diameter, each containing 100 micrograms of folic acid and 200 mgm. of ferrous fumarate.

INDICATIONS: Prevention of megaloblastic anaemia in pregnancy. CONTRAINDICATIONS: Pernicious anaemia.

DOSAGE: One to three tablets daily according to the patient's haemoglobin level.

HOW SUPPLIED: In vial of 100 and bottle of 1,000.

SUPPLY RESTRICTIONS: Recommended on prescription only.

FIRST ISSUED: July 1965.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, August 28, 1965.

PENBRITIN syrup forte

MANUFACTURER: Beecham Research Laboratories, Great West Road, Brentford, Middlesex.

DESCRIPTION: Powder for preparing 60 mls of fruit flavoured syrup. When dispensed, each 5-ml teaspoonful contains 250 mgm. of ampicillin. Antibiotic.

INDICATIONS: Infections due to ampicillin sensitive organisms. For adults, especially geriatric patients who have difficulty in swallowing capsules and where higher dosages are considered necessary for children suffering from severe infections.

CONTRAINDICATIONS: Penicillin sensitivity.

DOSAGE: *Children* (2-10 years): Half to one teaspoonful six hourly. *Adults*: One to two teaspoonfuls six hourly. In severe infections these dosages should be increased (see manufacturer's literature).

SHELF LIFE: When dispensed the syrup should be used within seven days.

HOW SUPPLIED: In 60-ml bottle.

SUPPLY RESTRICTIONS: Therapeutic Substances Act.

FIRST ISSUED: July 1965.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, August 28, 1965.

BERKFURIN tablets

MANUFACTURER: Biorex Laboratories, Ltd. DISTRIBUTOR: Berk Pharmaceuticals, Ltd., Catteshall Lane, Godalming, Surrey.

DESCRIPTION: Nitrofurantoin tablets B.P. Available in strengths of 50 mgm. and 100 mgm.

INDICATIONS: Urinary tract infections.

CONTRAINDICATIONS: Severe renal damage.

DOSAGE: Daily dose of 5-8 mgm. per kilo of body weight, in divided doses (50 to 150 mgm. four times daily for an adult).

SIDE EFFECTS: Sometimes produces nausea and vomiting, which ceases on reducing the dose. If, very occasionally, skin sensitisation occurs, the drug should be withdrawn.

STORAGE: In a cool place in tightly closed container and protected from light.

HOW SUPPLIED: In containers of 100 and 1,000.

FIRST ISSUED: July 1965.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, August 28, 1965.

BERKOMINE tablets

MANUFACTURER: Biorex Laboratories, Ltd. DISTRIBUTOR: Berk Pharmaceuticals, Ltd., Catteshall Lane, Godalming, Surrey.

DESCRIPTION: Imipramine tablets B.P. Available in strengths of 10 and 25 mgm.

INDICATIONS: Depression, whether reactive or endogenous in origin, and other organic psychoses, particularly if depressive in character. May be used in combination with electro-convulsive therapy.

CONTRAINDICATIONS: Must not be given with, or immediately following, the administration of monoamine-oxidase inhibitors.

DOSAGE: One 25 mgm. tablet three times daily for one week, which may be increased to two tablets, three times daily. For patients over 60 years of age the same dosage scheme should be followed using 10 mgm. tablets.

SIDE EFFECTS: Dryness of the mouth, tachycardia, disturbances of accommodation and a tendency to perspire.

HOW SUPPLIED: 10 mgm. tablets in containers of sixty, 250 and 1,000. 25 mgm. tablets in containers of fifty, 200 and 1,000.

SUPPLY RESTRICTIONS: P.I, S.4B.

FIRST ISSUED: July 1965.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, August 28, 1965.

ADMUNE-AQ vaccine

MANUFACTURER: Duncan, Flockhart & Evans, Ltd., Birkbeck Street, London, E.2.

DESCRIPTION: An influenza virus vaccine standardised by hæmagglutination to contain in 1 mil, 15,000 H.A. units in a buffered saline solution, comprising 6,250 units of A/England/1/61; 2,250 units of A/England/12/64; 4,250 units of B/England/939/59; 2,250 units of B/Taiwan/4/62.

INDICATIONS: Protective immunisation against influenza.

CONTRAINDICATIONS: Care should be exercised in persons with allergic conditions. Should not be given to those with known sensitivity to egg or viral protein.

DOSAGE: *Adults and children over 12 years*, 1 mil by deep subcutaneous or intramuscular injection.

PRECAUTIONS: Spirit should not be allowed to come into contact with vaccine.

STORAGE: Should be protected from light and stored at between 2° and 10° C.

HOW SUPPLIED: In single-dose disposable syringe (Snapject) complete with suitable sterile needle.

SUPPLY RESTRICTIONS: Recommended on prescription only.

FIRST ISSUED: August 1965.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, August 28, 1965.

FLUGEN vaccine

MANUFACTURER: Beecham Research Laboratories, Great West Road, Brentford, Middlesex.

DESCRIPTION: Influenza virus vaccine (inactivated) containing in each 1 mil the following viral strains: A2/Singapore/1/57, 4,000 H.A. units; A2/England/12/64, 4,000 H.A. units; B/England/939/59, 4,000 H.A. units; B/Taiwan/4/62, 3,000 H.A. units.

INDICATIONS: Protection of persons at risk from influenza: particularly "special risk" patients, persons living in semi-closed communities and key personnel in public services and industry.

CONTRAINDICATIONS: Sensitivity to egg or chicken protein.

DOSAGE: *Adults*: 1 mil by deep subcutaneous or intramuscular injection.

SIDE EFFECTS: Occasionally, transient erythema, swelling or induration at the site of injection.

SHELF LIFE: Stored at 2-10° C., the shelf life is eighteen months.

HOW SUPPLIED: In single dose 1-mil ampoule, box of six 1-mil ampoules and 10-mil multidose vial.

SUPPLY RESTRICTIONS: Recommended on prescription only.

FIRST ISSUED: August 1965 (revised formulation).

THE CHEMIST AND DRUGGIST Guide to New Medicaments, August 28, 1965.

ASPIN VK tablets

MANUFACTURER: Approved Prescription Services, Ltd., Horncastle Street, Cleckheaton, Yorks.

DESCRIPTION: Tablets each containing 125 mgm. or 250 mgm. phenoxymethylpenicillin as the potassium salt and conforming to British Pharmacopoeia requirements for tablets Penicillin VK. The tablets are bi-concave, one side having a breakline.

INDICATIONS: Infections due to penicillin sensitive bacteria.

CONTRAINDICATIONS: Penicillin sensitivity.

SHELF LIFE: Two years.

STORAGE: In a cool place. The container must be kept well closed to prevent access of moisture.

HOW SUPPLIED: In packs of 100 and 250.

SUPPLY RESTRICTIONS: Therapeutic Substances Act.

FIRST ISSUED: June 1965.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, August 28, 1965.

BETNOVATE-C cream and ointment

MANUFACTURER: Glaxo Laboratories, Ltd., Greenford, Middlesex.

DESCRIPTION: Non-greasy cream and greasy ointment containing 0.1 per cent. of betamethasone (as 17-valerate) and 3 per cent. of chioform (iodochlorhydroxyquinoline).

INDICATIONS: Dermatoses where bacterial or fungal infection is present or suspected.

CONTRAINDICATIONS: Presence of severe infection (except in conjunction with effective chemotherapy).

METHOD OF USE: A small quantity should be applied gently to the affected area once or twice daily. If necessary the area may be covered with a dry dressing.

HOW SUPPLIED: In tube of 15 gm.

SUPPLY RESTRICTIONS: Therapeutic Substances Act.

FIRST ISSUED: July 1965.

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INFLUVAC vaccine

MANUFACTURER: Philips-Duphar N.V., Amsterdam, Holland.

DISTRIBUTOR: Crookes Laboratories, Ltd., Telford Road, Basingstoke, Hants.

DESCRIPTION: Influenza virus vaccine (inactivated), comprising 10,500 H.A. units of strain A2/67/1963 (60 per cent.), and 7,000 H.A. units of strain B/33/1958 (40 per cent.) per mil. The vaccine is inactivated with β -propiolactone (which, unlike formaldehyde, does not cause pain on injection) and contains 0.01 per cent. thiomersal as a bacteriostat. The nitrogen (egg protein) content is less than 6 μ gm. per 3,500 H.A. units.

INDICATIONS: Protection of patients at risk from influenza, particularly patients with chronic bronchitis, asthma, emphysema and other chronic chest conditions; mitral stenosis and other chronic conditions of the heart; staphylococcal infections; metabolic disorders. Also for pregnant women, and persons over 55 years of age.

CONTRAINDICATIONS: Patients with a known allergy to poultry products—test dose advised.

DOSAGE: *Adults*: 1 mil subcutaneously. *Children* (4-10 years): 0.5 mil subcutaneously, followed by a repeat dose of 0.5 mil four weeks after the first injection.

STORAGE: Must be stored at 2°-10° C.

HOW SUPPLIED: In single 1-mil ampoule, box of six 1-mil ampoules and 10-mil and 100-mil multi-dose vials.

SUPPLY RESTRICTIONS: Recommended on prescription only.

FIRST ISSUED: September 1965.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, August 28, 1965.

INVIRIN vaccine

MANUFACTURER: Glaxo Laboratories, Ltd., Greenford, Middlesex.

DESCRIPTION: Influenza virus vaccine containing in each dose: 2,250 units of A/England/12/64, 6,250 units of A/England/1/61, 2,250 units of B/Taiwan/4/62 and 4,250 units of B/England/939/59.

INDICATIONS: Protection against influenza.

CONTRAINDICATIONS: Persons having allergic tendencies, especially those sensitive to egg protein.

DOSAGE: Each dose is ready loaded in a disposable syringe. Usually one injection given in late October or early November will provide protection during period of greatest risk.

STORAGE: Should be protected from light and stored in a refrigerator at 2-10°C. (36-50°F.).

HOW SUPPLIED: In boxes of one and ten single-dose disposable syringes.

FIRST ISSUED: August 1965.

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LINCOCIN syrup

MANUFACTURER: Upjohn, Ltd., Fleming Way, Crawley, Sussex.

DESCRIPTION: Raspberry flavoured syrup containing in each 5 mls 125 mgm. of lincomycin (as lincomycin hydrochloride monohydrate).

INDICATIONS: Infections caused by Gram-positive organisms.

CONTRAINDICATIONS: As for other antibiotics.

DOSAGE: *Children* (1-6 months), half to one teaspoonful twice daily; (6 months to 2 years), one to two teaspoonfuls twice daily; (3-9 years), one to two teaspoonfuls four times a day; (10-14 years), two to four teaspoonfuls four times a day. The doses may be increased according to the severity of the infection.

SIDE EFFECTS: May cause loose stools.

HOW SUPPLIED: In bottles of 60 mls.

SUPPLY RESTRICTIONS: Recommended on prescription only.

FIRST ISSUED: July 1965.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, August 28, 1965.

PLESMET F.A. tablets

MANUFACTURER: Coates & Cooper, Ltd., Pyramid Works, West Drayton, Middlesex.

DESCRIPTION: Chocolate coloured, sugar coated tablets each containing ferrous aminoacetosulphate, equivalent to 50 mgm. of iron, and 2.5 mgm. of folic acid.

INDICATIONS: Iron deficiency anæmia of pregnancy.

CONTRAINDICATIONS: Other iron deficiency anæmias.

DOSAGE: One tablet two or three times a day.

STORAGE: Should be stored in a cool place.

HOW SUPPLIED: In bottles of 100 and 1,000.

SUPPLY RESTRICTIONS: Recommended on prescription only.

FIRST ISSUED: September 1965.

TRADE REPORT

The prices given are those obtained by importers, or manufacturers for bulk quantities or original packages. Various charges have to be added whereby values are in many instances augmented before wholesale dealers receive the goods into stock. Crude drugs and essential oils vary greatly in quality and higher prices are charged for selected qualities.

LONDON, AUGUST 25: Prices of most CRUDE DRUGS were repeated during a week which was again quiet and almost featureless.

CHILLIES were difficult to find on the spot but shipment was offered from Zanzibar and from Mombasa. The firmer tone in Jamaican GINGER was maintained and African moved up 5s. cwt. in sympathy. IPECACUANHA from Brazil and Colombia were dearer by one shilling per lb. PEPPERS were considerably easier. CALAMUS ROOT was offered at 175s. a cwt. against 180s. in the previous week, while WITCH HAZEL LEAVES were dearer by one penny per lb. In AROMATIC SEEDS, Moroccan produce was firm with CORIANDER up one shilling and CUMIN up 2s. 6d. per cwt. for shipment.

American SPEARMINT was firmer by another two shillings per lb. on last week's advance rate. Quotations for new crop French LAVENDER were said to be dearer by three shillings to four shillings per lb.

d-PANTHENOL was lower by thirteen shillings per kilo, otherwise no changes were announced in PHARMACEUTICAL CHEMICALS. Anti-dumping duties are to be imposed on SACCHARIN and its salts originating in Japan and Korea as from August 25. The Board of Trade said imports from both countries at dumped prices had threatened British industry. The Board also stated that the one-shilling per lb. anti-dumping duty which has been in force since 1962 on LITHIUM CARBONATE originating in Canada has been revoked as from August 24.

Pharmaceutical Chemicals

Prices below may be subject to temporary import surcharge.

ANEURINE HYDROCHLORIDE. — (Per kilo.) One-kilo lots, 126s.; 10-kilos, 123s. 6d. The MONOHYDRATE is 129s. 6d. and 127s. for same quantities.

ASCORBIC ACID.—One-kilo, 44s. 6d.; 10-kilos, 41s. per kilo; 25-kilos, 39s. 6d.

ATROPINE. — Per oz. for 16-oz. lots; ALKALOID and METHONITRATE, 39s.; METHYLBROMIDE, 38s. 6d.; SULPHATE, 34s. (1,181s. for 1-kilo).

BEMEGRIDE.—B.P.C. is 320s. per kilo.

BENZOCAINE.—B.P. is 13s. 3d. per lb. in 1-cwt. lots.

CALCIFEROL. — One-kilo lots are from 2s 7½d. per gm. in standard packages.

CALCIUM PANTOTHENATE. — 97s. 6d. per kilo.

CHLORPHENESIN. — 50-kilo lots are 72s. 6d. per kilo.

CINCHOCAINE. — HYDROCHLORIDE, B.P., is 975s. per kilo.

CYANOCOBALAMIN. — Under 25-gm. lots, 66s. 8d. per gm.; under 100-gm., 65s. per gm., 100 gm., 63s. 4d. per gm.

DICOPHANE. (DDT.) — One-ton lots, 70-74 per cent., 2s. 3d. per lb.

DIOENESTROL.—B.P. is 1s. per gm. for 5-kilo lots.

DITHRANOL.—B.P. offered at 6s. 9d. per oz. for 7-lb. lots.

DOMIPHEN BROMIDE. — B.P.C. grade, 32s. per lb. in 1-cwt. lots.

FOLIC ACID. — B.P. and U.S.P., 1-kilo lots, £20 10s. per kilo.

INOSITOL. — One kilo, 100s.; 10 kilos, 90s. per kilo.

MENAPHTHONE. — (50-kilo lots.) B.P. 112s. 6d. per kilo; ACETOMENAPHTHONE, B.P., 122s. 6d.; WATER-SOLUBLE (menadione sodium bisulphite), 81s.

NICOTINAMIDE. — (Per kilo). One kilo, 42s.; 10 kilos, 39s. 9d.; 50 kilos, 37s. 9d.

NICOTINIC ACID. — One kilo, 32s.; 10 kilos, 29s.; 50 kilos, 27s. per kilo.

NIKETHAMIDE.—50-kilo lots are 52s. 9d. per kilo.

OESTRADIOL.— MONOBENZOATE, 14s. 6d. per gm.

OPIATES.—Home trade prices (per kilo) subject to D.D.A. Regulations.

	1 kilo and over	Under 1 kilo
CODEINE	s. d.	s. d.
ALKALOID ...	1,903 0	1,939 0
HYDROCHLORIDE ...	1,665 0	1,701 0
PHOSPHATE ...	1,445 0	1,480 0
SULPHATE ...	1,665 0	1,701 0
MORPHINE		
ACETATE ...	1,762 0	1,798 0
ALKALOID ...	2,159 0	2,194 0
HYDROCHLORIDE ...	1,762 0	1,798 0
SULPHATE ...	1,762 0	1,798 0
TARTRATE ...	2,115 0	2,150 0
ETHYLMORPHINE		
ALKALOID ...	2,229 0	2,265 0
HYDROCHLORIDE ...	1,903 0	1,939 0
DIAMORPHINE		
ALKALOID ...	2,106 0	2,141 0
HYDROCHLORIDE ...	1,930 0	1,965 0

D-PANTHENOL.—One to 10 kilos, 279s. per kilo.

PREDNISOLONE. — ALCOHOL and ACETATE from 7s. 6d. per gm.

PREDNISONE.—One-kilo lots, ALCOHOL and ACETATE, 7s. per gm.

PROGESTERONE.—Price is 1s. 3d. per gm. for 1-kilo lots.

PYRIDOXINE.—One kilo, £32 per kilo; 10 kilos, £31 10s. per kilo.

RIBOFLAVINE. — One kilo, 217s. 6d. and 10 kilos, 212s. 6d. per kilo.

SACCHARIN.—B.P. powder, 1 lb. and over, 15s. 6d. per lb.; SODIUM SALT, B.P., 14s.

SODIUM ACETATE.—B.P.C. 1949, 50-kilos, 4s. 0½d. per kilo.

SODIUM BENZOATE. — One-ton lots, 2s. 7½d. per lb.; 1-cwt., 2s. 9½d.

SODIUM BICARBONATE.—B.P., 1-cwt. bags £19 3s. per ton for 8-ton lots.

SODIUM BROMATE.—50-kilo lots, 12s. per kilo, 1,000 kilos, 9s. 6d. per kilo.

SODIUM CARBONATE.—(Per cwt.), B.P.C. exsiccated, 1-cwt., 90s.; 5-cwt., 85s.; 1-ton, 80s.

SODIUM CHLORIDE. — Vacuum dried, 172s. 9d. per ton in paper sacks for 6-ton lots, delivered London.

SODIUM CYCLAMATE. — Fifty-kilo lots offered at 13s. 6d. per kilo in free packages, delivered.

SODIUM FLUORIDE. — B.P.C., 1934, 50-kilo kegs, 8s. 7d. per kilo.

SODIUM HYDROXIDE. — FLAKE, £36 15s. per ton in 8-ton lots, STICKS, B.P. 1958, 50-kilos, 11s. 4d. per kilo in 5-kilo tin; PELLETS, 5s. kilo for 250-kilo lots.

SODIUM METABISULPHITE. — B.P. grade £47 17s. 6d. per ton. Commercial grade less 10s. per ton.

SODIUM NITRATE. — B.P. 50-kilo kegs, 5s. 8d. per kilo.

SODIUM PANTOTHENATE.—Per kilo, 115s.

SODIUM PERBORATE. — (Per ton). TETRAHYDRATE (minimum 10 per cent. available oxygen), £142 5s. in 1-cwt. kegs; £134s. 15s. in 1-cwt. bags; PERBORATE MONOHYDRATE (minimum 15 per cent. available oxygen) is £309 15s.

SODIUM PERCARBONATE. — (Per ton). £173s 15s. in kegs (bags £7 10s. per ton lower) for minimum 12½ per cent. available oxygen.

SODIUM PHOSPHATE. — B.P. crystals, 4s. 11d. per kilo; POWDER, 6s. 1d.

SODIUM SALICYLATE. — One-ton lots in bulk, 3s. 9d. per lb.; 5-cwt., 3s. 10d.; 1-cwt., 4s.

SODIUM SULPHATE.—B.P. from £15 per ton as to crystal, B.P. exsiccated about £66 per ton.

SODIUM SULPHITE. — Four-ton lots: photo, quality, £28 per ton in bags.

SODIUM THIOSULPHATE. — Photographic crystals in paper-lined bags, £25 per ton in 4-ton lots.

STREPTOMYCIN.—BASE or SULPHATE, 9d. per gm. Same price for DIHYDRO.

THYMOL.—One-cwt. lots are 11s. 3d. per lb.

VITAMIN A. — Synthetic. Supplied in concentrate 1 million international units per gm. as acetate at £17 14s. 2d. per kilo and oil-soluble palmitate at £15 12s. 6d. for once-kilo lots.

VITAMIN D. — D₂ powder for tableting 850,000 I.U. per gm. 125s. per kilo; in oil, 1 million I.U. per gm. 67s. 6d. per kilo for 100,000 m.i.u. Crystalline: see under calciferol. D₃ in oil (1 mega per gm.), threepence per mega for less than 100-gm. ampoule.

VITAMIN E.—Natural *d* alpha tocopheryl acid succinate, hydrogen salt, 1,210 I.U., 25 gm. lots 9d. per gm.; 100 gm., 8d.; 1 kilo, £25. Synthetic *dl*, 1,000 units per gm., the prices are 8d., 5d. and £18 for the same quantities.

Industrial Chemicals, Solvents

ACETALDEHYDE. — The 100 per cent. is £122 per ton minimum 1-ton lots.

ACETATES. — Per ton, spot in drums: AMYL, technical, £254 and B.S.S., £256. BUTYL, £136; ETHYL, £113; ISOBUTYL (80 per cent.), £111 and pure, £115; ISOPROPYL, £110; METHYL, 80 per cent., £142.

ACETIC ANHYDRIDE. — 12-ton lots £103 per ton; 2½-ton, £107, tanker deliveries.

ACETONE. — One-ton lots spot £68 per ton in drums.

N-BUTYL ALCOHOL. — One-ton lots in drums, £127 per ton and one-drum lots, £136 per ton.

CARBON TETRACHLORIDE. — In 40-gall. drums, 1 ton and under 2 tons, £83 15s.; 4 tons and upwards, £82 5s.

ISOPROPYL ALCOHOL. — Technical grade (99 per cent.) in tank car lots from 4s. 6d. to 4s. 8d. per gall.; anhydrous in drums, 7s. 1d. to 7s. 4½d. per gall.; in bulk, 6s. 11d. to 7s. 1d.

METHYL ETHYL KETONE.—One-ton lots, £111 10s. per ton.

NAPHTHALENE. — Contract rates for phthalic grade are from £25 per ton in bulk, ex works; lower crystallising whizzed grades from £20 to £25 per ton ex works; ball and flake, £71.

PHTHALATES. — Prices (per ton) one-ton lots in drums; Di-BUTYL, £159; Di-ISO-BUTYL, £154; Di-ETHYL, £171; Di-METHYL, £161.

PHTHALIC ANHYDRIDE.—Domestic material ex contract, £90 per ton.

SODA ASH. — Four-ton lots, from 300s. per ton delivered.

STEARATES.—Minimum 1-ton lots, ALUMINIUM (No. 1), £243 10s. per ton and (non-gel.), £281; CALCIUM (precipitated), £243 10s.; LEAD (30 per cent.), £245; MAGNESIUM (standard), £257 and (superfine), £287. ZINC, £246 to £276 as to grade.

Crude Drugs

ACONITE. — Spot, Spanish, *napellus*, 2s. 4d. per lb.; shipment, 2s. 3d., c.i.f.

AGAR. — Kobé No. 1, 13s. per lb. in bond; shipment, 12s. 6d., c.i.f. Spanish scarce on the spot at 15s. 6d., duty paid, nominal.

ALOE. — Cape primes and Curaçao, 265s. per cwt. spot. Shipment, 260s., c.i.f.

ANISE. — Chinese, STAR, 145s. per cwt. spot, duty paid; f.a.q. for shipment, 116s., c.i.f.

BALSAMS.—Per lb.; CANADA: 24s., spot. COPAIBA: B.P.C. Spot, 12s. nominal. PERU: 25s., spot; shipment, 24s. 6d., c.i.f., nominal. TOLU: B.P., from 10s. 6d. to 27s. 6d.

BAY.—LEAVES, 1s. 9d. per lb., spot.

BELLADONNA.—LEAVES, 6s. per lb., nominal, spot. ROOT, 1s. 8d. per lb., spot; shipment, 1s. 7d., c.i.f.

BENZON.—Sumatra block spot from £20 to £40 per cwt. as to quality.

BUCHU. — Spot, 5s. per lb. Stocks at origin exhausted.

CALAMUS. — ROOT, 100s. per cwt., spot, 87s. 6d., c.i.f.

CALUMBA.—ROOT is offered at 175s. per cwt. spot.

CAMPOR. — B.P. powder for shipment, 5s. 3d. per lb., c.i.f.; spot, 6s. 6d., duty paid.

CARDAMOMS. — Aleppy greens, spot, 20s. per lb.; shipment, 22s. 9d., c.i.f.

CASCARA. — Spot, 225s. per cwt.; 1965 peel for shipment, 216s., c.i.f.

CASSIA.—*Fistula*, 105s. per cwt. spot; *ligea*, whole shipment, 205s., c.i.f.; selected broken, 205s., c.i.f.

CHAMOMILE.—Belgian flowers scarce at from 20s. per lb., upwards, spot; German type, 7s. 6d.

CHERRY BARK. — Thin natural, 2s. 3d. per lb., shipment, 2s. 1d., c.i.f.

CHILLIES.—Zanzibar, spot, not quoted; shipment, 330s. per cwt., c.i.f. Mombasa for shipment, 345s., c.i.f.

CINNAMON.—BARK, Seychelles, 140s. cwt. spot; shipment, 130s., c.i.f.; QUILLS, Ceylon (per lb., c.i.f.): 4 O's, 10s.; single O, 9s. 4d.; quillings, 5s. 3½d.

CLOVES. — Zanzibar, spot, 2s. 10½d. per lb. standard grade, shipment, 2s. 7½d., c.i.f.

COCHINEAL. — Canary Isle silver-grey, 20s. per lb.; black brilliant, 22s. Peruvian silver-grey, 16s. 6d. landed, 15s. 9d., c.i.f.

COCILLANA.—Bark 1s. 6d. per lb. on the spot.

ERGOT.—Portuguese, spot, 11s. per lb.; shipment, 11s., c.i.f., nominal. Continental, 10s., spot.

GINGER.—(Per cwt.). Nigerian, August–September shipment, split, 85s., c.i.f.; peeled, 210s. spot; African, spot, 235s. per cwt.; shipment, August–September, 220s., c.i.f. Jamaican No. 3, spot, 380s.; shipment, not quoted. Cochín, spot 320s.; shipment, 315s., c.i.f.

GUM ACACIA.—Kordofan cleaned sorts, 162s. 6d. per cwt., spot; shipment, 156s., c.i.f.

HONEY. — (Per cwt.). Australian light amber, spot, 120s. to 125s.; and medium amber, 110s. to 115s.; Argentine, 110s. to 115s.; Canadian, 175s. to 180s.; Mexican spot, 115s. to 120s.

IPECACUANHA. — High testing material short on spot. Matto Grosso for shipment, 56s. per lb., c.i.f. and spot, 57s. 6d. Costa Rican, 72s. spot, nominal; shipment, 70s., c.i.f. Colombian, 56s. 6d., c.i.f. for shipment.

KARAYA.—No. 1 f.a.q. gum, spot, 415s.; No. 2, 300s. per cwt.

KOLA NUTS.—African, spot, 6½d. per lb., nominal; shipment, 5½d., c.i.f.

LINSEED. — Whole, 72s. 6d. per cwt.; crushed, 110s.

LIQUORICE. — Natural root: Russian, 67s. 6d. per cwt.; Anatolian, 57s. 6d.; Anatolian decorticated, 170s. Block juice: Anatolian, 210s. to 220s. per cwt.; Italian stick from 395s. to 460s. per cwt.

LOBELIA.—Dutch on the spot offered at from 4s. 3d. to 5s. 3d. per lb. New crop, October shipment, 4s. 6d., c.i.f.

Mace.—Whole pale blade, 14s. per lb. for forward delivery.

MENTHOL.—(Per lb.). Chinese for shipment, 27s. 6d., c.i.f.; spot, 28s. 6d., in bond, Brazilian for shipment, 28s., c.i.f.; spot, 31s. 6d. to 32s., duty paid.

NUX VOMICA.—Cochin, 110s. per cwt. on the spot; shipment, 95s., c.i.f.

ORANGE PEEL. — Spot: Sweet ribbon, 1s. 8d. per lb., bitter quarters: Wesa Indian, 10½d.; Spanish, 1s. 9d.

PAPAIN. — East African No. 1, 21s. 6d. per lb., c.i.f. with Ceylon about the same price.

PEPPER.—White Sarawak, spot, 3s. 8d. per lb.; shipment, 3s. 6d., c.i.f. Black Sarawak, 3s. 4d., spot, nominal; shipment, 2s. 10½d., c.i.f. Black Malabar, spot, not quoted; shipment, 309s. per cwt., c.i.f.

PODOPHYLLUM.—Spot per cwt.: *Emodi*, 230s.; 210s., c.i.f.

QUILLAIA.—For shipment, 135s. per cwt. c.i.f.; spot, 130s.

RHUBARB.—Manufacturing grades offered at from 5s. to 8s. 6d. per lb., other grades cleared spot and forward.

SAFFRON.—Mancha superior, spot, 625s. per lb.; Rio, 600s.

SARSAPARILLA. — Jamaican native red, spot, 3s. 6d. per lb.; shipment, 3s., c.i.f.

SEEDS. — (Per cwt.). ANISE. — Spanish, 240s., duty paid. CARAWAY.—Dutch, 135s., duty paid. CELERY.—Indian, 180s., spot; August–September shipment quoted at 170s., c.i.f. CORIANDER.—Steady. Moroccan, 60s., duty paid; shipment, Moroccan, 52s. 6d., c.i.f.; Rumanian whole, 60s., c.i.f. CUMIN. — Market continues firm. Indian, 315s.; Moroccan, 330s., duty paid; shipment, Indian quoted at 295s., c.i.f.; Moroccan, 290s., c.i.f. DILL. — Indian, 120s., spot; shipment, 92s. 6d., c.i.f. FENNEL.—Chinese unchanged at 130s., duty paid; Indian not available; shipment, Chinese, 112s. 6d., c.i.f.; Indian, 140s., c.i.f. FENUGREEK. — Moroccan, 48s. 6d., duty paid; shipment quoted at 40s., c.i.f. MUSTARD.—English, 60s. to 80s. according to quality.

SENEGA. — Spot, 19s. 6d. per lb.; new crop, August shipment, 18s. 6d., c.i.f.

SLIPPERY ELM BARK.—Spot offered at 3s. 4d. per lb.

SQUILL. — Italian, spot, 175s. per cwt.; shipment, 160s., c.i.f.

STRAMONIUM.—Continental LEAVES, 85s. per cwt., spot.

STYRAX.—Spot, 13s. 6d. per lb.; shipment, 13s. 3d., c.i.f.

TONQUIN BEANS.—Para spot, 4s. 6d. per lb.; shipment, 3s. 10d., c.i.f.

TRAGACANTH.—Ribbon, No. 1, £175 per cwt.; No. 2, £160.

VALERIAN ROOT.—Indian, spot, 210s. per cwt.; shipment, 200s., c.i.f.

VANILLIN. — (Per lb.). 5-cwt. lots, 21s. 6d.; 1-cwt., 21s. 9d.; 56-lb., 22s.; small quantities, 22s. 6d. All plus temporary import charge.

WAXES. — (Per cwt.). BEES' — Dar-es-Salaam, 445s.; shipment, 410s.; Sudanese, spot, 400s., in bond; shipment, 390s., c.i.f. CANDELLILLA, spot, 465s.; forward, 460s. landed. CANAUBA, fatty grey, spot, 310s.; shipment, 287s. 6d., c.i.f.; prime yellow, spot, 630s.; shipment, 585s., c.i.f.

WITCH HAZEL LEAVES.—Spot quotations are 2s. 4d. per lb.; shipment, 2s. 3d., c.i.f.

Essential and Expressed Oils

ALMOND. — Imported sweet oil is 7s. per lb. spot.

AMBER.—Rectified on the spot, 2s. per lb.

ANISE. — Chinese, 9s. 6d., spot, shipment, 9s. 6d., c.i.f.

BAY.—From 45s. lb. on the spot.

BERGAMOT.—Spot quotations for best oil are about 105s. per lb.

BIRCH TAR.—Rectified, 3s. per lb.

BOIS DE ROSE. — Brazilian spot from 16s. 6d.; shipment, 16s., c.i.f.

CADE. — Spanish from 2s. per lb. for drum lots.

CAJUPUT.—Spot from 11s. per lb.

CALAMUS.—Spot from 70s. to 100s. per lb. as to origin.

CAMPOR, WHITE. — Chinese for shipment, 4s. 6d., c.i.f., per kilo; spot, 2s. 9d. lb., duty paid.

CASSIA.—Spot from 55s. per lb. for 80–85 per cent.

CEDARWOOD. — American from 7s. 6d. per lb. on the spot; East African, 7s. 6d.

CELERY SEED. — Quotations are from 120s. per lb. for Indian and 200s. for British.

CHENOPODIUM.—From 36s. per lb.

CITRONELLA. — Ceylon, spot, 5s. 1½d.; shipment, 4s. 7½d. per lb., c.i.f.; Formosan and Chinese, 4s. 6d., in bond; shipment, 4s. 4d., c.i.f.

CLOVE.—Madagascar leaf for shipment, 5s. 6d., c.i.f., spot, 6s. 1d., in bond. Rectified, 10s. Distilled bud-oil, ENGLISH B.P., 26s. per lb. for 1-cwt. lots.

FENNEL.—Spanish sweet, 16s. per lb., duty paid.

GERANIUM. — Bourbon, 87s. 6d. to 92s. 6d., spot.

LAVANDIN. — From 25s. to 30s. per lb. as to quality.

LAVENDER. — French from 50s. to 60s. per lb. as to quality.

LAVENDER SPIKE. — From 30s. to 40s. per lb. as to quality. Replacements quoted around 50s. per lb.

LEMONGRASS.—Spot, 8s. 10½d. per lb.; shipment, 8s. 7½d., c.i.f.

LIME. — West Indian distilled, 65s. per lb. on the spot.

PALMAROSA. — Shipment, 50s. per lb., c.i.f.; spot, 54s.

PATCHOULI. — Penang forward is nominally, 67s. 6d. per lb., c.i.f.; spot, from 72s. 6d., duty paid.

PEPPERMINT. — *Arvensis*: Chinese for shipment, 10s. 3d., c.i.f.; spot, 10s. 6d. Brazilian for shipment, 11s. 6d., c.i.f.; spot, 11s. 6d. *Piperita*: Italian, 48s. to 60s., spot. American from 32s. 6d. per lb. as to make.

PETITGRAIN. — Paraguay for shipment, 13s. 9d., c.i.f.; spot, 14s. 3d. per lb.

ROSEMARY. — Spanish, 14s. per lb., duty paid.

SAGE.—Spanish, 22s. 6d. per lb.; Dalmatian, 26s.

SPEARMINT.—American oil on the spot, 47s. 6d. to 50s. per lb.

UNITED STATES REPORT

NEW YORK, AUGUST 24: Crude GLYCERIN was lifted a half cent per lb. PERU BALSAM has been advanced 25 cents to \$3.75 a lb. while RAUWOLFIA (*Serpentina*) has been reduced 10 cents to \$1.70. Higher per lb. among ESSENTIAL OILS were SPEARMINT at \$7.75 (up 50 cents), Florida ORANGE, 35 cents (five cents) and native CANANGA, \$7.50 (25 cents). Ceylon CITRONELLA declined 15 cents to 75 cents a lb.

TRADE MARKS

APPLICATIONS ADVERTISED BEFORE REGISTRATION

From the "Trade Marks Journal," August 11

For pharmaceutical preparations and substances for human and veterinary use; sanitary substances and disinfectants (5)

HIADONE, 879,360, by Imperial Chemical Industries, Ltd., London, S.W.1.

For pharmaceutical preparations for veterinary use (5)

VERAMIX, 880,182, by Upjohn, Ltd., Crawley, Sussex.

For pharmaceutical and veterinary preparations (5)

OCCRYCETIN, 880,281, by Willows Francis, Ltd., London, E.8.

For pharmaceutical, veterinary and sanitary substances (5)

GESTADYDRAL, DELIXYL, 880,381-82, by Roche Products, Ltd., Welwyn Garden City, Herts.

For electric shaving instruments, hair cutting machines (for personal use) and parts and fittings (8)

STATESMAN, 877,388, by Philips Electrical, Ltd., London, W.C.2.

For animal feeding stuffs (31)

COOPALIK, 878,664, by Cooper, McDougall & Robertson, Ltd., Berkhamsted, Herts.

From the "Trade Marks Journal," August 18

For chemical products used in industry and science; chemical products used in agriculture, horticulture, and forestry; and chemical products for preserving foodstuffs (1) for soaps, perfumes, non-medicated toilet preparations, essential oils, cosmetics, hair lotions and dentifrices (3) and for all goods (5)

DUPHAR, 875,573-75, by N.V. Philips-Duphar, Amsterdam, Holland.

For household cleaning preparations, but not including soap (3)

GALAXY, 860,633, by Colgate-Palmolive Co., New York, U.S.A.

For perfumes, toilet preparations (not medicated), cosmetic preparations, eau-de-Cologne and soaps (3)

AKABA, B873,502, by Picot, Ltd., London, W.6.

For balls of cotton wool for cosmetic purposes (3)

BOBLETS, B873,884, By E. Illingworth & Co. (Bradford), Ltd., Halifax, Yorks.

For pharmaceutical substances for the treatment of metabolic disorders and diastatic conditions (5)

OLIGOCRINE, 848,323, by Labcatal, Paris. For pharmaceutical preparations and substances for the treatment of urinary infections (5)

ANANYL, 852,672, by Siegfried, A.G., Zofingen, Switzerland.

For medicated pads and medicated tissues, all made of paper, fibres, plastics or of rubber (5)

SAVETT, 867,899, by Cederoth International, S.A., Geneva, Switzerland.

For sanitary towels and sanitary tampons (5)

SIL-TAM, 855,341, by Macdonald & Taylor, Ltd., Ashton-under-Lyne, Lancs.

For pharmaceutical preparations for the treatment of coughs, colds and the like respiratory ailments, all being for use by oral administration (5)

BEEHIVE, 872,565, by Ayrton, Saunders & Co., Ltd., Liverpool, 1.

For all goods (5)

INKASAN, 873,428, by Inka Cosmetic, G.m.b.H., Hanover, Germany.

For all goods, but not including bandages or any goods of the same description as bandages (5)

SURCOS, 874,481, by Hydrophane Laboratories, Ltd., Hitchin, Herts.

For adhesives for securing artificial dentures (5)

DENTUGARD, 875,278, by Stafford-Miller, Ltd., Hatfield, Herts.

For pharmaceutical substances and preparations (5)

ARMOCYCLAR, 876,160, by Armour Pharmaceutical Co., Chicago, Illinois, U.S.A. DIO-CALM, 876,665, by Beecham Group, Ltd., Brentford, Middlesex.

For medicinal and pharmaceutical preparations and products (5)

CRILIN, 876,546, by American Home Products Corporation, New York, U.S.A.

For pharmaceutical, medical, veterinary and sanitary preparations and substances; and preparations for killing weeds and destroying vermin (5)

INGODON, 877,068, by C. H. Boehringer Sohn, Ingelheim-on-Rhine, Germany.

For sanitary substances, disinfectants and preparations for destroying vermin (5)

STERIZONE, 877,327, by Northern Ireland Chemicals, Ltd., Belfast, 13.

For soups prepared for infants and invalids and for dietetic purposes, and preparations for making such soups (5)

SLIMBIX SOUP, 878,539, by Britanol, Ltd., Horsforth, Leeds, Yorks.

For pharmaceutical products (5)

MIMITAL, 879,998, by English Grains Co., Ltd., Burton-on-Trent, Staffs.

For pharmaceutical preparations and substances for human and veterinary use; sanitary substances and disinfectants (5)

ELIERIN, 880,738, by Imperial Chemical Industries, Ltd., London, S.W.1.

For pharmaceutical preparations and substances, for treating cardiac conditions (5)

CARDIOMID, 881,071, by Michel Delalande, Paris, France.

For photographic apparatus and instruments, and parts and fittings (9)

STYLOPHOT, 877,457, by Honor House Products, Ltd., London, W.2.

For electrically heated blankets (10)

EMELEC, 875,147, by East Midlands Electricity Board, Nottingham, ROWEN, 877,793, by Owen Owen, Ltd., Liverpool, 1.

PATENTS

COMPLETE SPECIFICATIONS ACCEPTED

From the "Official Journal (Patents)," August 11

Weight-control compositions comprising non-ionic surfactants. General Aniline & Film Corporation, 1,004,922.

δ-Substituted-dibenzo (a,t) cycloocta-1,6-dienes. Ayerst, McKenna & Harrison, Ltd, 1,004,925.

Amino-ketones, their preparation and compositions containing them. Laboratoire Roger Bellon, 1,004,927.

Method of preparing semisynthetic penicillins. Sopfa, Sdruzeni Podniku Prozdavotnickou Vyrobu, 1,004,930.

Process for the manufacture of 2:2:2-trifluoro-L-chlor L-bromethane. Farbwerke Hoechst, A.G. 1,004,936.

3,5-Dichloro-2,6-dimethyl-4-pyridinol. Dow Chemical Co, 1,004,941.

Sampling of free-flowing granular materials. Robert Bobby, Ltd, 1,004,947.

Steroids having condensed heterocyclic ring and their production. Shionogi & Co., Ltd, 1,004,958.

Amidines process for their preparation and pharmaceutical compositions containing them. Rhone-Poulenc, S.A. 1,004,974.

Naphthalene derivatives. Imperial Chemical Industries, Ltd, 1,005,021-27.

Anti-depressant therapeutic compositions. Abbott Laboratories, 1,005,029.

Alkylamionotriazine derivatives. Shell Research, Ltd, 1,005,030.

Derivatives of nitrofurazone. Norwich Pharmacal Co, 1,005,041.

Sulphur containing herbicides. Velsicol Chemical Corporation, 1,005,049.

Phosphorus-containing esters. Farbenfabriken Bayer, A.G. 1,005,051.

Dentifrice preparations. Colgate-Palmolive Co, 1,005,089.

Process for removing phenol from waste water. Otto & Co, 1,005,146.

Paste for cleaning false teeth. F. J. L. Galle, 1,005,161.

Deodorant. Procter & Gamble Co, 1,005,194.

Dihydrazino dienes. Whiffen & Sons, Ltd, 1,005,201.

Process for the manufacture of a steroid 20-ketoxime. Syntex Corporation, 1,005,235.

Sulphur-containing lactone derivatives and processes for their preparation. Roussel-Uclaf, 1,005,242.

Process for the preparation of sustained release pharmaceutical tablets. Boehringer Ingelheim G.m.b.H. 1,005,329.

Toothbrush. H. Makonsky, 1,005,334.

Method of establishing vegetative growth. O. M. Scott & Sons Co, 1,005,344.

Pharmaceutical preparations containing choline ester salts. Olin Mathieson Chemical Corporation, 1,005,342.

Herbicidal composition of matter. O. M. Scott & Sons Co, 1,005,345.

Anti-oxidants and compositions of matter containing them. J. R. Geigy A.G. 1,005,371.

Heterocyclic esters of thiophosphoric acid and pesticidal compositions containing them. Rhone-Poulenc, S.A. 1,005,372.

Production of 3-alkylmercapto phenothiazines. Westminster Bank, Ltd, 1,005,376.

Cassette for light-sensitive materials. Gevaert Photoproducten N.V. 1,005,392.

3-aryl-pyrrolidinal and their preparation. Mead Johnson & Co, 1,005,401.

Coating medicinal tablets. Abbott Laboratories, 1,005,424.

Packages for glass tubes containing medical substances. J. Villaume, 1,005,452.

Moving or still picture projectors. Moviecol Sales, Ltd, 1,005,462.

3,5-Diisopropylphenyl-n-methyl carbamate a low toxicity insecticide. Hooker Chemical Corporation, 1,005,464.

6-fluoro-1,2a-methylene-Δ⁶-17β-hydroxyprogesterone esters and a process for their manufacture. Schering, A.G. 1,005,495.

Process for removing higher-melting fatty materials from glyceride oils. Procter & Gamble, Ltd, 1,005,543-44.

Process for separating liquid from solid glycerides. Procter & Gamble, Ltd, 1,005,545.

X-ray contrast preparations. A. Alpin, 1,005,613.

Photographic materials. Eastman Kodak Co, 1,005,631.

2(3)-unsaturated 3-enol ethers of 2-formyl-3-oxo-5β-steroids and process for the preparation thereof. British Drug Houses, Ltd, 1,005,639.

2(3)-unsaturated 3-enol ethers of 2-hydroxyethyl-3-oxo-5β-steroids and process for the preparation thereof. British Drug Houses, Ltd, 1,005,640.

Dihalo-carbene addition products of unsaturated carboxylic acids. Unilever, Ltd, 1,005,641.

Carboxylic acids and esters thereof. Rhone-Poulenc, S.A. 1,005,642.

2-methylene cyclododecanone and perfumery compositions containing it. Rhone-Poulenc, S.A. 1,005,643.

Method of preparing new 4-(γ-oxobutyl)-1,2-diphenyl-3,5-dioxoprazolidine derivatives and salts thereof. Spofa, Sdruzeni Podniku Pr Zdravotnickou Vyrobu, 1,005,644.

Anti-tussive compositions. Kefalus A/J, 1,005,648.

Sulphur containing derivative of vitamin A and processes for its manufacture. Merck A.G. 1,005,649.

Steroid guanyldiazones. Farbenfabriken Bayer, A.G. 1,005,650.

Oxidation of mercurous salts. Imperial Chemical Industries, Ltd, 1,005,658.

British patent specifications relating to the above will be obtainable (price 4s. 6d. each) from the Patent Office, 23 Southampton Buildings, Chancery Lane, London, W.C.2, from September 2.

NEW COMPANIES

P.C.—Private Company. R.O.—Registered Office. F. A. BILLINGTON (BRANDHALL), LTD. (P.C.).—Capital £1,000. To carry on business as wholesale and retail chemists, etc. Directors: Frederick A. Billington, M.P.S., Beryl E. Billington and Brian W. Aston, M.P.S. R.O.: Brandhall Estate, Brandhall, Oldbury.

DISCOUNT TOILETRIES, LTD. (P.C.). Capital £100. To carry on the business of dealing in chemists' goods, etc. Subscribers: Antony Davis, M.P.S., and Kathleen M. Davis, R.O. 134 Winchester Avenue, London, N.W.9.

MILBURN (CHEMISTS), LTD. (P.C.). Capital £12,000. To carry on the business of manufacturing, dispensing and advising chemists, etc. Directors: Ernest M. White, 77 Cleveland Gardens, High Heaton, Newcastle-on-Tyne; Richard A. Milburn, M.P.S., Thomas R. Milburn, M.P.S., Peverill H. Milburn, M.P.S. and Colin M. Richardson, M.P.S.

P. & I. SMITH (BLETCHLEY), LTD. (P.C.).—Capital £10,000. To carry on the business of general dispensing, photographic and advising chemists, opticians, etc. Directors: Peter L. Smith, F.P.S., and Keith Watson, M.P.S. R.O. 255 Bletchley Road, Bletchley, Bucks.

NOTES ON NEW MEDICAMENTS

FLUENZA VIRUS VACCINES.—(Admune-Q, Influvac, Invirin, Flugen). These are aqueous forms of influenza vaccine, and consist essentially of inactivated influenza virus, suspended in a saline vehicle. They are products of high potency and low toxicity and are intended for the protection of individuals who are "special risk" patients, i.e., those with chronic pulmonary disease, chronic heart disease, and others for whom protection is considered advisable, such as hospital staff and transport workers. As most of the population has already been exposed to influenza viruses, the injection of inactivated virus vaccine acts as a secondary stimulus. A high level of protective antibodies occurs in about two weeks after injection, reaching a peak in about one month. Adequate levels are maintained for periods of three to six months. A vaccination programme can reduce the incidence of influenza as much as 75 per cent, when compared with an unvaccinated group. Anti-influenza vaccines of the aqueous type are usually well-tolerated, but the period of protection they give is not long, and an attempt was made in the recent past to prepare oil-containing vaccines. Those "oil-adjuvant" vaccines were of markedly increased potency, and gave immunity extending over one year. Such emulsified vaccines could be given by intramuscular injection only and their use was occasionally followed by local side-effects. Pending further investigation of that problem, oily vaccines have been withdrawn.

PERAL. — *Chemistry:* 1-Isopropylamino-3-(1-naphthoxy)propan-2-ol hydrochloride (propranolol). The compound has a specific blocking action on the beta-receptors of the sympathetic nervous system, and so has therapeutic applications in the treatment of angina pectoris and cardiac arrhythmia. The sympa-

thetic nervous system has two types of receptors, both of which are stimulated by adrenaline. The alpha-receptors are associated with the activity of smooth muscle, and can be stimulated by noradrenaline as well as adrenaline. The activity of cardiac muscle, on the other hand, is linked with the beta-receptors, and can be stimulated by isoprenaline. Adrenaline can increase the activity of cardiac muscle to a point where oxygen demand exceeds the supply, and a similar state occurs in angina pectoris. A blockade of the beta-receptors would therefore inhibit such activity, reduce oxygen demands and relieve cardiac insufficiency. The first effective drug to be used therapeutically was pronethalol (2-isopropylamino-1-(2-naphthyl)ethanol) but possible toxic effects associated with its prolonged use have led to the introduction of the more powerful and less toxic propranolol.

PREGAMAL. — *Constituents:* Ferrous fumarate and folic acid. Ferrous fumarate is one of the most acceptable of iron salts being well tolerated, rapidly absorbed, and having a much greater iron content than other common iron salts used therapeutically. It is therefore of value in the anemia of pregnancy, as some deficiency of iron often occurs during the later months. Megaloblastic anemia due to a deficiency of folic acid may also occur, especially if the iron reserves of the body are low. Such an anemia is slow in development and is a sign of earlier lack of folic acid. The prevention of the megaloblastic anemia of pregnancy therefore requires an adequate intake of folic acid from an early stage, and for that reason combined iron and folic acid therapy is now used as a prophylactic measure. It should be noted that Pregamal is intended for prophylactic use in pregnancy only. It is not suitable for the treatment of megaloblastic anemia.

PHILIPS ELECTRICAL, LTD., Century House, Shaftesbury Avenue, London, W.C.2: Philishave range of shavers. In *Daily Mirror*, *Daily Mail*, *Daily Express*, *Daily Record*, *Sun*, *People*, *Sunday Mirror*, *Sunday Express*, *Belfast Telegraph*, *Irish News* and *Sunday News*.



DUAL PURPOSE: This free-standing display unit for Cal Fresh calcium drink is designed to make an effective window or counter display. Also available are wire counter-display units, strutted showcards, crown units, and give-away leaflets and dispensers. Suppliers are Britanol, Ltd., Swinton Hall Road, Swinton, Manchester.

COMING EVENTS

Items for inclusion under this heading should be sent in time to reach the Editor not later than first post on Wednesday of the week of insertion.

Monday, August 30

MERSEYSIDE BRANCH, NATIONAL ASSOCIATION OF WOMEN PHARMACISTS. Visit to Liverpool Cathedral, at 2.30 p.m. (members and friends welcome).

Wednesday, September 1

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, Cambridge. Annual meeting: Until September 8.

INTERNATIONAL CONGRESS OF THE HISTORY OF PHARMACY. School of Pharmacy, 29 Brunswick Square, and Pharmaceutical Society, 17 Bloomsbury Square, London, W.C.1. Until September 8.

INTERNATIONAL PHARMACEUTICAL STUDENTS' FEDERATION CONGRESS, Bray, co. Wicklow, Republic of Ireland, Until September 11.

Thursday, September 2

CHESTER BRANCH, PHARMACEUTICAL SOCIETY, Blossoms hotel, Chester, at 8 p.m. Members' evening: Holiday pictures.

Sunday, September 5

BRITISH PHARMACEUTICAL CONFERENCE, Cardiff. Until September 11.

Advance Information

GLASGOW PHARMACY CLUB. Whist drives are being held at Peacock's tearooms, 453 Sauchihall Street, Glasgow, on November 2, December 7, January 11, 1966, February 1 and March 1. The annual dinner and dance is at Cameron House on October 26.

Courses and Conferences

CROYDON BRANCH, PHARMACEUTICAL SOCIETY. A refresher course of six lectures, to be held at the Friends' Meeting House, Park Lane, Croydon, monthly on Monday evenings, is proposed. The syllabus will include principles of modern treatment and the application of new methods and thoughts in treatment. The lecturer provisionally engaged is Mr. L. Priest, Starting in October, the course will last until April 1966. Fee is £2 2s. Members of neighbouring branches who would be interested in attending are asked to contact Mr. G. F. Clark, 3 Highfield Drive, Shortlands, Bromley, Kent (telephone Rav. 4271) so soon as possible.

PRINT AND PUBLICITY

Publicity for Pharmacists

Who "aids to public relations in support of retail pharmacists" have been produced by Bayer Products Co., Wintrop House, Surbiton, Surrey. They are a counter display card and a leaflet for distribution to customers, both promoting the theme "When buying medicines, consult your chemist—your pharmacist knows." The 4-p.p. leaflet summarises a pharmacist's training and tells the customer that he may be consulted confidently on preparations advertised for the treatment of minor ailments. "Your chemist . . . is a man or woman of sympathy and understanding whose experience embraces human as well as medical problems."

PUBLICATIONS

Medical Propaganda

Manufacturers' leaflets, folders, booklets, etc., directed to doctors but available to pharmacists.

CHAM RESEARCH LABORATORIES, Great West Road, Brentford, Middlesex: Flugen (file card).

PHARMACEUTICALS, LTD., Godalming, Surrey: Berkamine and Berkfurin (file cards). PURE DRUG CO., LTD., Station Street, Ottingham: "In the treatment of insomnia Melsedin" (8-p. booklet).

LABORATORIES, LTD., Basingstoke, Hants: Influvac (4-p. folder).

FLUEN, FLOCKHART & EVANS, LTD., London, W.2: Admune-AQ (file card).

LABORATORIES, LTD., Walk House, 14 Yorkshire Street, Rochdale, Lancs: "Speridin capsules . . . restore capillary integrity" (4-p.). (Similar literature is available for Antipirin.) "Coprol . . . non-toxic, non-habitual, oral stool-softening agent" (card).

LABORATORIES, LTD., Greenford, Middlesex: "Invirin," "Betnovate, Betnovate-N and

Betnovate-C skin preparations," and "Pregamal" (file cards).

IMPERIAL CHEMICAL INDUSTRIES, LTD., Pharmaceuticals Division, Alderley Park, Macclesfield, Chesh: "Inderal" (18-p. booklet).

MAY & BAKER, LTD., Dagenham, Essex: "Stemetil . . . for the treatment of vertigo, migraine, nausea and vomiting" (4-p. folder). "But for those who find sleep difficult . . . Soneryl (blotter). "In nausea and vomiting . . . Avomine" (4-p. folder and blotter).

MERCK SHARP & DOHME, LTD., Hoddesdon, Herts: "A more normal life for the hypertensive patient . . . Aldomet (6-p. folder).

PARKE, DAVIS & CO., Hounslow, Middlesex: "Portyn Templets . . . in peptic ulcer and functional gastro-intestinal disease" (12-p. booklet).

ROCHE PRODUCTS, LTD., 15 Manchester Square, London, W.1: Valium, "The growing record" (4-p. folder). "Research probes deeper into the brain and sites of emotional control" (8-p. booklet).

WILLIAM R. WARNER & CO., LTD., Eastleigh, Hants: "Peritrate SA aids survival, helps hearts too good to die." "The Anusol range . . . provides relief and maintains comfort in ano-rectal conditions (cards).

Booklets and Leaflets

SELLOTAPE PRODUCTS, LTD., Industrial Division, Sellotape House, 54 High Street, Edgware, Middlesex: "Tapes for Industry" (26-p. booklet).

PRESS ADVERTISING

BIOMETICA, LTD., Boreham Wood, Herts: Inka. In women's magazines.

INTER-PAN, LTD., 45 Mount Street, London, W.1: Pan instant spray shampoo. In *Woman's Own*, *Woman's Realm*, *Flair* and *Vanity Fair*.

KAPUTINE, LTD., Boardman Street, Oldham, Lancs: Bellair hairspray. In *Woman's Own*, *Woman*, *Honey* and *Flair* from September 27. P. & M.-WARRICK, Penarth Street, London, S.E.15: Meggeson dyspepsia tablets. In *News of the World*, *People*, *Sunday Mirror*, *Sunday Express* and *Sunday Mail*.

Prescribers' Press

The following comments on drugs appear in *Drug and Therapeutics Bulletin*: Kinidin Durules. For reversion of atrial fibrillation seems less likely to be effective than ordinary quinidine, though it has been used successfully; adequacy of the preparation for maintenance therapy has not yet been demonstrated by properly controlled trials. Aserbine. There is no good evidence that the preparation can do anything special for burns or ulcers. (D. & T. B., August 20.)

What doctors are reading about developments in drugs and treatments

CHLORPHENTERMINE S.A. has been shown to be of value as an adjunct to dietary measures in producing loss of weight in obese patients attending a hospital clinic at regular intervals for three months. In a double-blind trial carried out at Glasgow Royal Infirmary, forty patients were given 75 mgm. tablets of the active drug or a placebo. They were instructed to take one tablet first thing in the morning and to adhere to an 800-calorie diet. After three months, patients on chlorphentermine showed a mean loss of weight of 13.9 lb. compared with 4.6 lb. for those on the placebo. At the end of the hospital trial period, both groups were given chlorphentermine by their general practitioners for a further three months. The mean loss of weight of the "active-drug" group did not alter, while the placebo group's mean weight loss increased to 7.8 lb. The difference was not statistically significant however due to the wide scatter of the results. (*B.M.J.*, August 21, p. 453.)

THE use of Enavid (norethynodrel and mestranol) in the prevention of abortion should be abandoned, states a worker at the University of Leeds. His conclusion is based on the results of a trial closed at ten patients because the drug seemed to be having an adverse effect. Ten pregnant patients with a previous history of abortion were given Enavid and seven healthy babies were delivered, two patients again aborted and there was one intrauterine death. Those results, states the author, compared with those to be expected

from supportive therapy (psychological, by discussion and encouragement) alone, suggest that Enavid is ineffective in reducing the incidence of abortion. All patients in the series showed salt crystals in the cervical smear before treatment (the crystals are normally present at ovulation but their presence early in pregnancy is associated with a 50 per cent. abortion risk in the untreated patient). In the study, the crystallisation was reduced in three patients, unchanged in two, and increased in four patients. The increase was shown probably due to the tablets: "The opposite of the desired effect." (*Lancet*, August 21, p. 362.)

Six-monthly intramuscular injections of sodium antimonyl dimercaptosuccinate, at a dosage of 10 mgm. per kilo of body-weight, has been found to be the best regimen for treating children found to be infected with *Schistosoma haematobium*. The trial, carried out among schoolchildren in Tanzania and reported from the Ross Institute of Tropical Hygiene, London, compared the use of the drug with sodium antimonyl gluconate and lucanthone hydrochloride. (*Lancet*, August 21, p. 354.)

CHLORMETHIAZOLE (Heminevrin) has been shown to be valuable in the treatment of withdrawal symptoms in alcoholics, report workers at St. Bernard's Hospital, Southall, Middlesex. Their finding is based on a controlled trial of ninety-seven patients in which the drug was compared with a placebo. No serious side effects were observed. (*B.M.J.*, August 14, p. 401.)

CONTEMPORARY THEMES

Subjects of contributions in current medical and technical periodicals.

- CONTROLLED PACKAGING PROGRAMME. Establishment of a, for a hospital pharmacy, *Amer. J. hosp. Pharm.*, July 1965.
- THE HALF-TABLET as a unit dose. A study of. *Amer. J. hosp. Pharm.*, July 1965.
- ULTRASONIC WAVES. Effect of on the extraction of alkaloids. *J. pharm. Sciences*, July.
- ATROMENT-N. Anticoagulant from *Hydnellum diabolus*. *J. pharm. Sciences*, July.
- AQUEOUS PRALIDOXIME SOLUTIONS. Effect of aging of on assay, toxicity, and antidotal activity. *J. pharm. Sciences*, July.
- DDT in human milk. *Nature*, August 14.
- p-NITROBENZYLPHOSPHONIC ACID. Antiviral activity of. *Nature*, August 14.
- PLASTICS. The future of, in medical and pharmaceutical practice. *Amer. J. hosp. Pharm.*, July 1965.
- DRUG DOSAGE for infants and children. *J. Amer. med. Ass.*, August 9.
- USE AND ABUSE of drugs. *Brit. med. J.*, August 21.
- CHLORPHENTERMINE S.A. in the treatment of obesity and the effect of weight loss on steroid excretion. *Brit. med. J.*, August 21.
- PARGYLINE and METARAMINOL. Hypertensive crisis due to. *Brit. med. J.*, August 21.
- URINARY SCHISTOSOMIASIS. Treatment of. *Lancet*, August 21.
- NORETHYNODREL AND MESTRANOL (Evanid) in the prevention of recurrent abortion. *Lancet*, August 21.
- RENAL STONES. Solubility of. *Nature*, August 21.
- DIHYDROSTREPTOMYCIN. Effect of on tissue lipid of guinea-pigs. *Nature*, August 21.
- CHRONIC TOXICITY TESTING. *Nature*, August 21.
- HUMAN HAIR. Rate of greying of. *Nature*, August 21.

COMMERCIAL TELEVISION

The information given in the table is of number of appearances and total screen time in seconds. Thus 7/105 means that the advertiser's announcement will, during the week covered, be screened seven times and for a total of 105 seconds.

August 29 to September 4														Channel 1s.
PRODUCT	London	Midland	North	Scotland	Wales & West	South	North-east	Anglia	Ulster	Westward	Border	Grampian	Eireann	
4711	2/30	1/15	2/30	2/30	2/30	1/15	1/15	1/15	1/15	—	—	—	—	—
Anadin	5/150	4/64	3/44	4/120	7/95	5/150	2/60	1/30	2/60	2/60	2/60	3/90	—	1/30
Andrews liver salts ...	3/90	3/90	3/90	3/90	6/180	2/60	5/150	3/75	5/150	4/105	3/90	5/150	—	2/60
Askit powders and tablets...	—	—	—	28/196	—	—	—	—	—	—	3/21	3/21	—	—
Aspro	7/49	7/49	7/49	7/49	7/49	7/49	7/49	7/49	7/49	7/49	7/49	7/49	—	7/49
Bisodol	5/29	—	—	—	—	5/35	—	—	6/30	—	—	—	—	—
Bunty baby products ...	—	—	—	—	—	—	—	—	1/15	—	—	—	—	—
Carnation corn caps ...	—	—	2/14	—	—	—	—	—	—	—	—	—	—	—
Clinic shampoo	3/90	3/90	7/210	3/90	4/120	4/120	4/120	3/90	3/90	3/90	5/150	4/120	—	7/210
Dentu-creme	1/30	1/30	2/60	1/30	1/30	1/30	2/60	2/60	1/30	1/30	2/60	1/30	—	1/30
Dettol	3/21	2/14	1/7	2/21	—	1/7	1/7	3/21	3/21	3/21	3/21	—	—	2/14
spray	—	—	—	—	2/30	—	—	—	—	2/30	—	—	—	—
Freeczone	—	1/7	—	—	—	—	—	—	—	—	—	—	—	—
Goddess hairspray ...	—	—	—	—	—	2/60	—	—	—	—	4/120	—	—	—
Loxene shampoo	1/30	1/30	1/30	1/30	1/30	1/30	2/30	1/30	1/30	1/30	1/30	1/30	—	—
Milk of Magnesia tablets...	3/45	1/15	3/45	3/45	5/75	4/60	3/45	3/45	2/20	3/45	3/45	3/45	—	4/60
Milkote	—	5/45	—	—	—	—	—	—	—	—	—	—	—	—
Moorland indigestion tablets	—	—	—	6/90	—	—	3/45	—	—	—	—	—	—	—
Poli-Grip	1/30	1/30	1/30	1/30	—	—	—	—	—	—	—	—	—	—
Rinstead pastilles	—	2/30	2/30	—	—	2/30	—	—	—	2/30	—	—	—	2/60
SR tooth-paste	5/150	2/60	3/90	3/90	4/120	4/120	3/90	5/150	4/120	2/60	2/60	4/120	—	3/90
Steradent	1/30	2/60	—	2/60	2/60	1/30	1/30	1/30	1/30	2/60	1/30	2/60	—	1/30
Wright's coal tar soap ...	1/15	1/15	1/15	1/15	1/15	1/15	1/15	1/15	—	1/15	1/15	1/15	—	—

cumulative price changes

AMENDING C & D
QUARTERLY PRICE LIST
FOR JUNE 1965

I Debut (366 Dendron) large size Bore (976 PS & T) deodorant spray 51 9 12 11 7 6 hair cream 51 9 12 11 7 6 liquid shampoo 51 9 12 11 7 6 shaving lather 51 9 12 11 7 6 I (1113 S&B) eau de Cologne original shape No. 11 401 2 100 3½ 58 6 No. 812 288 0 72 0 42 0 No. 9119 185 2 46 3½ 27 0 No. 815 120 0 30 0 17 6 No. 816 65 2 16 3½ 9 6 No. 15W 133 9 33 5 19 6 No. 16W 78 10 19 8½ 11 6 trial size No. 828 25 9 6 5 3 9 watch shape No. 843 37 9 9 5 5 6 wicker No. 1 651 5 162 10 95 0 No. 2 360 0 90 0 52 6 No. 3 202 3 50 7 29 6 flat shape in carton No. 127/T 51 5 12 10 7 6 flat shape in wicker No. 127/W 56 7 14 2 8 3 decanter No. 554 219 5 54 10 32 0 spray set No. 782 121 9 30 5 17 9 bath cubes No. 9115/8 30 10 7 8½ 4 6 hand cream No. 9107 18 10 4 8½ 2 9 No. 9106 30 10 7 8½ 4 6 matt creme tube No. 9105/12 12 0 3 0 1 9 No. 5055/9111 20 7 5 2 3 0 jar No. 9110/13 37 9 9 5 5 6 soap (3) No. 8859 61 9 15 5 9 0 solid Cologne No. 1100 34 3 8 7 5 0 No. 5316 27 5 6 10 4 0 osert (2 Abbott) †s1s4A disposable syringe 2 gm 10 0ea — 15 0 line (821 McGlashan) powder single 36 0 9 0 5 double (1 gross) (1 gross) 54 0 13 6 7 double (1 gross) (1 gross) — — — — — rile (117 BPL) als 250 mgm 6 17 8ea 4 5ea 30 11 rapid (436 Evans) ts7 nsulin 40 units/ml 43 11 — 4 10 10mls — — — — — 80 units/ml 84 9 — 9 5 10mls 10 6ea — 15 0 nune - A Q (394 DF) disposable syringe 1 12 0ea — 16 0 x (520 Gnome) ameras 35mm Golf 1A rapid — — 263 7 case — — 38 4 Golf 11A — — 552 0 case — — 65 1 naline (1091 Rybar) jection BP1963 epatine (49 AF) †s4B colour (16 Agfa) negative film CN17 universal 35mm standard cassette 12 exp — — 6 3 20 exp — — 7 9 Rapid cassette — — 6 9 roll film 127, 120, 620 — — 6 6 existing CN17 film — — — — —	Albamylin GU (1263 Upjohn) †s4B TS tablets 30 41 7ea — — 100 135 0ea — — Albucid (187 BS) eye ointment 10%† Allinson (831 Meggeson) starch-reduced rolls 43 3 — 1 6 (3 doz) D wholewheat rolls Alphidine (912 O) Pulverettes 50 51 0 13 0 — 100 73 0 18 0 — 500 15 5ea 3 10ea — 1000 29 7ea 7 5ea — Acytosal 100 70 0 17 0 — 500 18 11ea 4 9ea — 1000 36 6ea 9 1ea — guaiacium & sulphur 100 64 0 16 0 — 500 15 3ea 3 10ea — 1000 30 3ea 7 7ea — Alupent (154 B) (distributors 501 Geigy) ampoules 0.5 mgm/ml 6 7 7ea — 11 4½ 30 32 5ea — 48 7½ metered aerosol 16 6ea — 24 9 refill 15 ml 13 9ea — 20 7½ solution 5% 7.5 ml 5 5ea — 8 1½ 120 ml 4 10ea — 7 3 syrup 50 10 8ea — 16 0 tablets 20 mgm 250 48 3ea — 72 4½ D Amesec (413 Lilly) Enseals 25 Amokole (781 Lusty) tablets 50 21 0 5 3 3 0 125 48 0 12 0 7 0 D Amytal (413 Lilly) tablets 200 mgm 5000 and acetylsalicylic acid Pulvules 40 & 5000 and aminophylline Pulvules 40 & 5000 and belladonna 1000 D Anaesthetic ether (394 DF) Anaprel (1123 SLL) (distributors 1556 Farillon) Andrex (153 BSC) toilet tissue single 34 5 — — (3 doz) — — — — double 32 0 — — (1½ doz) Angel Face (256 CPL) mascara compact 14 0 3 4 1 11 eye shadow stick face powder D Anovlar (973 Pharmethicals) D Anovlar 21 (973 Pharmethicals) †s4B tablets single pack 6 4ea — 9 6 3-pack 17 4ea — 26 0 6-pack 33 8ea — 50 6 Antidot (757 Lewis) tablets 0.5 gm 20 32 0 — 4 0 100 148 0 — 18 6 500 700 0 — 87 6 Antilope (Weil (960 ADP) foam bath 16 0ea 3 11ea 30 0 parfum de toilette 2oz 21 0ea 5 1½ea 37 6 4oz 31 6ea 7 8ea 56 0 8oz 50 0ea 12 2ea 91 0 2oz 23 6ea 5 9ea 42 0 diffusette 3½oz 33 9ea 8 3ea 59 6 Secret de Venus bath oil bobines 12 66 0ea 16 1ea 120 0 1 5 6ea 1 4ea 10 0 1oz 15 3ea 3 9ea 27 6 1oz 26 0ea 6 4ea 46 6 1oz 46 9ea 11 5ea 82 6 2oz 84 6ea 20 7ea 147 6 4oz 158 6ea 38 8ea 277 6 D Antoin (394 DF) tablets 10 & 500 A.P.P. (291 Consolidated) †s1s4A stomach powder 100 gm 60 0 15 0 —	tablets 50 45 0 11 0 — 250 15 0ea 3 9ea — Apsin VK (1432 APSL) tablets 125 mgm 100 18 3ea — — 250 44 6ea — — 500 88 6ea — — 1000 176 0ea — — 250 mgm 100 35 6ea — — 250 88 0ea — — 500 175 6ea — — 1000 350 0ea — — Apyrogen (34 A & H) ampoules 2 mils 5 22 0 — 2 9 100 26 0ea — 39 0 5 mils 5 26 0 — 3 3 100 31 0ea — 46 6 10 mils 5 48 0 — 6 0 100 55 0ea — 82 6 Aquacell (1553 Contactsol) contact lens case 10 6ea — 15 0 D Aqua-Net (1092 Saga) existing entry Aqua-Net (1524 Chembro) hair spray aerosol 6½oz 38 0 9 6 5 6 13oz 61 3 15 4 8 9 18oz 76 6 19 1 10 9 sachet refill 12 0 3 0 1 9 D Arcancil (1168 S&J) Arcancil (128 Biometica) eyebrow brush 222 37 1 9 1 5 6 eye liner liquid regular 490 50 7 12 5 7 6 pearl 490N 50 7 12 5 7 6 brush 110 37 1 9 1 5 6 eye make-up remover 290 50 7 12 5 7 6 eye pencil regular 655 20 3 5 0 3 0 pearl 755 20 3 5 0 3 0 self-sharpening 999 50 7 12 5 7 6 refill 999R 27 0 6 7 4 0 eye shadow stick 640 37 1 9 1 5 6 pearl 640N 37 1 9 1 5 6 mascara cake 220 27 0 6 7 4 0 335 43 10 10 9 6 6 Ardena (60 Arden) traveller II case 956-00 — — 30 0 D Special cleansing cream 120.04 Complexion Clear 120.02 — — 17 6 120.04 — — 32 6 Arrid (235 Carteret) Supreme aerosol 60 0 15 0 7 11 Arrowmint (1223 TWC) chewing gum 6 7½ 11½ 3 (40 pkts) (40 pkts) Asahi Pentax (1027 Rank) camera 35 mm 55 mm f2 lens Sla — — 1590 0 55 mm f1.8 lens 5V — — 2200 6 case — — 97 8 D Ascon (37 Allied) all products Asilone (117 BPL) † paediatric sachets (25) 4 6ea 1 1½ea 7 10½ Astral (333 Cupal) air freshener aerosols apple blossom 6oz 34 6 — — apple blossom 8oz 38 4 — 3 11 bouquet 12oz 55 0 — 5 6 Caribbean night 6oz 34 6 — — magnolia blossom 8oz 38 4 — 3 11
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when prescriptions call for INSULINS, supply

WELLCOME brand

• SOLUBLE • LENTE • PROTAMINE ZINC • GLOBIN



BURROUGHS WELLCOME & CO. (The Wellcome Foundation Ltd.) LONDON

[illegible]

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Anol Expect (97 Bayer)tslsA						daylight refill						D existing pack						
150 mills	56	0	14	0	7	0	36 exp.						Hanimex (545 Hanimex)					
140 mills							darkroom refill						cine camera					
azone (731 Langford)							36 exp.						synchro zoom 8					
bath salts large	—	—	—	2	6		continuous length,						D Hardy Amies (532 Goya) all products					
esca (1333 Wigmore)							5 metres						11 10					
Cologne for men	—	—	—	25	0		17 metres						35 3					
escabel (726 Lancome)							dia. direct reversal						permanent 165					
cream	222	—	—	27	6		cartridge						D Healthcrafts (584 H)					
tube	223	—	—	39	6		36 exp.						16 3					
esco (1333 Wigmore)	223T	—	—	31	6		amateur cine film, 26, 32,						Healthcrafts (29 Alfonal)					
esh Ups (1372 CCL)							16 mm, 100 ft.						Heinz (593 Heinz)					
	100	28	0	—	3	6	double 8 mm,						junior foods					
	300	70	0	—	8	9	25 ft.						jars 6oz 21 0 (2 doz)					
ozoclon (365 Demuth)							Gillette (514 Gillette)						D jars 7½oz					
(distributors 1054 R&A)							razor Slim-Twist 35 1½						8 9 5 0					
	32	6	8	1½	4	9	Gladys Cooper (436 Evans)						D Helena Rubinstein (596 HR)					
ozolavender (365 Demuth)							soap toilet 9 6						eyeliner pencil					
(distributors 1054 R&A)							bath 16 0						fashion brow					
	32	6	8	1½	4	9	Gluc-Thricil (938 PD)						"Conceal"					
							1oz 40 0						"Headliner"					
lecin (649 ICI)							Glycinello (664 J5&C)						"Skin-Dew"					
tablets 250 mgm							hand cream 39 4						9 10 5 9					
mite (1296 Waeco)							D Glycodine (394 DF)						D Hepastab (147 Boots)					
mite (1557 PWL)							Gnome (520 Gnome)						forte vial 10 mills					
							projector						D Hepatex (436 Evans) oral					
							Alphax						D Hepovite (394 DF)					
							Major 721						tablets					
							Classic 746						Heprona (436 Evans)					
							Golden Babe (761 Lilia-White)						4oz 75 0					
							baby bath						40oz 43 6ea					
							baby bibs						Hermesetas (1000 PPL)					
							disposable masks						liquid 25 mills 31 6					
							Snuggi-pants 26 0						3 3					
							tissues						D Heudebert's (794 MNF)					
							toilet rolls						Heudebert's (115 Bengue)					
							Gold Spot (409 EH)						Biscottes 12 slices 11 3					
							(distributors 67 Ashe)						36 slices 27 0					
							deodorant						5lymbred 36 slices 25 6					
							roll-on 30 0						7 6 4 6					
							Goya (532 Goya)						wholemeal rusks					
							deodorant						12 slices 11 3					
							spray puffer 27 6						36 slices 27 0					
							Golden Girl						Hexevan (436 Evans) ts48					
							beauty puff						(vet.) 25 24 0					
							cocktail						Hibitane (649 ICI)					
							compact 98 30 11						concentrate 5%					
							perfume						100 mills 51 0					
							miniature 4 41 3						500 mills 136 0					
							stick Cologne 45 34 4						1 gal 89 3ea					
							Wild Silk						diacetate 10 gm 63 0					
							bath blossoms						gluconate 20%					
							40gm 25 9						w/v 100 mills 112 0					
							220gm 41 3						500 mills 44 3ea					
							bubble bath 18cc 10 3						hydrochloride 10 gm 71 6					
							cleansing pads						100 gm 57 3ea					
							20gm 15 5						3 9 2 3					
							Cologne 25cc 51 7						12 7 7 6					
							gift size 62cc 86 0						20 11 12 6					
							spray 62cc 103 2						25 13 15 0					
							stick 20gm 34 4						8 4 5 0					
							deodorant						7 6 4 6					
							compact 14gm 30 11						4 7 2 9					
							refill 14gm 18 11						6 8 4 0					
							puffer spray						34cc 27 6					
							aerosol 80gm 55 0						13 5 8 0					
							dusting powder						150gm 86 0					
							hand lotion 100cc 25 9						6 3 3 9					
							perfume						58 5 14 3					
							miniature						120 5 29 4 17 6					
							gift						120 5 29 4 17 6					
							spray						6 10 1 8					
							shampoo						2½oz 15 2					
							soap						137gm 58 5					
							spray set						390gm 113 6					
							gel						110gm 30 11					
							talcum						137gm 48 2					
							aerosol						60 0					
							Gravergol (1441 Wallace) ts48						7 6					
							Guanimycin (34 A&H)						ts48					
							Hæmamol (394 DF)						D					
							Haldrate (413 Lilly)						D					
							tablets 1mgm						D					
							Halibut liver oil (413 Lilly) capsules						D					
							Halina (1136 Silber) existing entries						D					
							Halina (1136 Silber)						D					
							cameras A.1						159 6					
							case						39 5					
							6-4						99 6					
							case						29 11					
							35X						153 3					
							case						29 11					
							Paulette						179 6					
							case						39 6					
							Rolls						119 6					
							case						29 11					
							Simplette F						99 6					
							case						19 9					
							Viceroy						79 6					
							case (salpa)						18 0					
							(canvas)						10 6					
							Halinatnat (1136 Silber)						273 0					
							projector 300						6 6					
							Hand-e-cream (1166 Southon)						3 9					
							26 0						4 2					
							Handjoy (485 Fulford)						17 0					
							hand cleanser						4 3					
							dispenser						2 6					

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stick	812	—	—	18	6																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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D	D	pilewort ointment	19 6	4 10 1	2 9	02 37 6	3 6	—	D	D	Methergin (1098 Sandoz) ts4B			
		tube	50 17 6	4 4 1	2 6	gross	gross	—			Methergin (1098 Sandoz)			
		raspberry leaf	40 13 6	3 4 1	1 11	white and grey	75 0	7 0			ampoules 1 mil 50			
		tea	17 0	4 3	2 6	gross	gross	—			1 mil 6			
		rheumatism	17 0	4 3	2 6	human hair cap	37 6	3 6			tablets 1000			
		herbs	17 0	4 3	2 6	ordinary shades	15,2D,35,4D,55,6D	37 6	3 6		Methyltestosterone (917 Organon) ts4B			
		seaweed tablets	50 16 0	4 0	2 4	white and grey	75 0	7 0			Sublings 5 mgm			
		and celery	150 35 0	8 9	5 0	nylon 10in	gross	gross			25 3 0ea			
		tablets	50 16 0	4 0	2 4	50C,50D	32 0	3 0			100 10 10ea			
		and sarsaparilla	150 35 0	8 9	5 0	122C,122D	31 6	2 0			500 50 0ea			
		tablets	50 16 0	4 0	2 4	gross	gross	—			Microfolex (1091 Rybar)			
		sleep inducing	150 35 0	8 9	5 0	51C,51D	30 9	2 10 1/2			tablets			
		tablets	50 16 0	4 0	2 4	setting and slumber	40 0	3 9			100 7 0ea			
		slippery elm	150 35 0	8 9	5 0	29C,29D,88C,88D	40 0	3 9			500 23 10ea			
		stomach	50 7 0	1 9	1 0	gross	gross	—			Migril (208 8W) ts4B			
		tablets	50 7 0	1 9	1 0	99D	66 8	6 3			Minamino (291 Consolidated)			
		senna pods	150 35 0	8 9	5 0	gross	gross	—			compound			
		Alexandrian loz	15 0	—	1 8	silk 10in 28C,28D	33 4	3 1 1/2			100mils 6 0ea			
		vegetable salt 7oz	—	—	—	gross	gross	—			Miners (876 MP)			
		pourer	—	—	—	triangular art silk	2258	16 6	1 8		hair lacquer			
		witch hazel	15 0	—	1 10	nylon	23 6	2 2	—		large refill bottle			
		8.P.C.	—	—	—	fine nylon 85	23 6	2 2	—		3080 10 4	2 7		
		Lyndiol (917 Organon) ts48	20 4 4ea	—	6 6	Matine (654 Innox)	—	—	6 9		large refill sachet			
		tablets	5 x 20 19 4ea	—	29 0	foundation	—	—	—		3084 6 10	1 8 1/2		
		Lyta Wheat (179 BDH)	—	—	—	Mavala (664 JS&C)	75 0	18 9	11 0		lipstick			
		starch-reduced	30 3	—	1 8	nail "color" plain	90 0	22 6	13 3		Minette (667 JCL)			
		crispbread	(2 doz.)	—	—	frosted	—	—	—		slide viewer JE6			
		Madecol (117 8PL)	—	—	—	Maws (810 Maw)	—	—	—		Minibisks (175 8CP)			
		powder puffer 2gm	7 4ea	1 10ea	12 10	feeders	—	—	—		Minibisks (1030 Fisons)			
		Magie (726 Lancome) existing entries	—	—	—	pyrex comp.	8oz 302.00	23 1	—	2 10	Mini Rex (1136 Silber)			
		Magie (726 Lancome)	—	—	—	8oz 302.11	21 1	—	—	2 7	exposure meter II			
		bath crystals 61601	—	—	17 6	spare 8oz 303.01	17 4	—	—	2 2	Minolta (667 JCL)			
		dusting	—	—	—	polycarbonate	8oz 303.22	28 0	—	3 6	cameras			
		powder	61605	—	25 0	bottle 348-00	—	—	—	—	Autocord Cd5			
		eaux	—	—	—	junior shampoo tube	—	—	—	—	JM181	—		
		parfume	6141	—	50 0	junior shampoo	—	—	—	—	case JM182	—		
		6142	—	—	84 0	bottle 4oz	—	—	—	—	Rapid 24 JM186	—		
		6143	—	—	140 0	lanoline cream jar	30 10	7 9	4 6	—	case JM187	—		
		gold-and-white decor	—	—	—	Mazda (12 AEI)	—	—	—	—	Repo 5 with	—		
		debutante 61129	—	—	45 0	flash bulbs capless	—	—	—	—	case JM185	—		
		handbag size 6119	—	—	45 0	No. 1 clear	—	—	9	—	viewer auto	—		
		1oz 6118	—	—	52 6	Mecablitz (1136 Silber) existing entries	—	—	—	—	camera ER JM1	—		
		1oz 6111	—	—	84 0	Mecablitz (1136 Silber)	—	—	—	—	projector 44 JM60	—		
		1oz 6112	—	—	135 0	flashgun 111	—	—	231 2	—	viewer 16 JM46	—		
		2oz 6113	—	—	240 0	115	—	—	445 5	—	camera	—		
		3oz 6114	—	—	360 0	116	—	—	322 2	—	Repo with case	—		
		Baton de	—	—	—	117	—	—	380 8	—	JM104	—		
		Magicien 61128G	—	—	55 6	118	—	—	464 8	—	ER JM1	—		
		mist	6151	—	18 0	502 with	—	—	1171 3	—	projector 44 JM60	—		
		6152	—	—	33 0	6 volt acc. N/C	—	—	988 2	—	viewer 16 JM46	—		
		perfume	6107	—	67 6	wet	—	—	—	—	camera	—		
		atomiser	6109	—	45 0	Mecamains (1136 Silber)	—	—	397 9	—	Repo with case	—		
		refill	—	—	—	flashgun	—	—	—	—	JM145	—		
		presentation de luxe	—	—	—	Mecatwin (1136 Silber)	—	—	394 9	—	Miochol (451 F&J)	—		
		Magie	61203	—	225 0	flashgun	502	—	—	—	eye solution "Univials"	—		
		61202	—	—	330 0	500	—	—	—	—	2cc 21 0ea	—		
		powder	6173	—	15 0	Medihaler-bron (1061 Riker) existing entry	—	—	—	—	hair dressing	—		
		6172	—	—	27 6	Medihaler-bron (1061 Riker)†	—	—	—	—	aerosol	34 0	8 6	
		skin perfume	6197	—	115 6	complete pack	15 4ea	—	23 0	—	shaving foam	34 0	8 6	
		atomiser	6198	—	63 0	Medihaler Epi (1061 Riker) existing entry	—	—	—	—	aerosol	—	—	
		refill	6199	—	6 6	Medihaler Epi (1061 Riker)†	—	—	—	—	6oz 32 8	8 2		
		soap	591	—	12 6	complete pack	12 8ea	—	19 0	—	8oz 41 10	10 5		
		talc plastic	590	—	12 3	Medihaler Ergotamine (1061 Riker) existing entry	—	—	—	—	16oz 53 4	13 4		
		metal	590	—	—	Medihaler Ergotamine (1061 Riker) ts4B	—	—	22 6	—	New Yorker	—		
		Manicurette (1555 Corsectric)	—	—	—	complete pack	15 0ea	—	—	—	aerosol	6oz 25 6	6 5	
		electric	—	—	—	Medihaler Iso (1061 Riker) existing entry	—	—	—	—	16oz 43 0	10 9		
		manicure set	34 8ea	8 8ea	63 0	Medihaler Iso (1061 Riker)	—	—	19 0	—	home perm	49 1	12 3	
		M&M (1451 BDH)	—	—	—	complete pack	12 8ea	—	—	—	instant nail dry	—		
		tulle 3 1/2 x 3 1/2	36 9 9 1/2	—	14 9	Medihaler Iso Forte (1061 Riker) existing entry	—	—	—	—	aerosol	6oz 32 8	8 2	
		Marevan (394 DF)	—	—	—	Medihaler Iso Forte (1061 Riker)	—	—	23 0	—	Mani-Cure	34 6	8 7	
		tablets	—	—	—	complete pack	15 4ea	—	—	—	polish remover	10 4	2 7	
		3 mgm 500	36 4ea	—	54 6	Meeson (1458 MLL)	—	—	4 6	—	Quick Set	35 9	8 11	
		5 mgm 500	57 4ea	—	86 0	massager	—	—	—	—	setting lotion	20 7	5 2	
		3 mgm 1000	—	—	—	Meeson (1458 MLL)	—	—	—	—	shampoo's lanolin, lemon tonic,	—		
		5 mgm 250	—	—	—	Sniff smelling	—	—	—	—	medicated	—		
		Marquise (513 G&C) existing entries	—	—	—	bottle	—	—	1 6	—	sachet	29 1	7 3	
		Marquise (513 G&C)	—	—	—	D Meloton (37 Allied)	—	—	—	—	(1 gross)	20 7	(1 gross)	5 2
		combs steel	—	—	—	Mellavax (208 BW) VPO	—	—	—	—	bottle	43 7	(1 gross)	10 11
		C100	27 10	5 7	—	vaccine (vet.)	—	—	—	—	sachet	18 2	(1 gross)	4 7
		C101	26 3	5 3	—	5 dose	20 7 1/2ea	—	27 6	—	Step Up	—	—	
		C102	27 6	5 6	—	25 dose	87 6ea	—	116 8	—	Monica Smart (856 M5C)	—		
		C103	30 0	6 0	—	Melleril (1098 Sandoz) ts4B	—	—	—	—	deodorant-roll	—		
		C104	28 5	5 8	—	syrup	100mils 54 0	—	6 9	—	ball	29 0	7 0	
		C105	30 0	6 0	—	2 litre	72 6ea	—	108 9	—	face powder	16 1	3 11	
		C106	30 0	6 0	—	D Melosan (37 Allied)	—	—	—	—	lipstick	32 2	7 10	
		C107	32 10	6 7	—	Memoire Cherie (60 Arden)	—	—	—	—	skin tone	—		
		C108	34 0	6 4 1/2	—	roll on deodorant	792-00	—	—	—	foundation	—		
		C109	27 10	5 7	—	hair spray	—	—	9 6	—	talcum	72 5	17 7	
		C110	27 10	5 7	—	weekender	—	—	17 6	—	33 10	8 2		
		C112	31 3	6 3	—	Mercardan (938 PD)	—	—	21 0	—	Monotheamin (413 Lilly)	—		
		C114	34 0	6 4 1/2	—	ampoules 1 mil 12	—	—	—	—	Pulvules 100 mgm all sizes	—		
		C115	26 11	5 5	—	Mercury (667 JCL)	—	—	—	—	200 mgm 40 & 5000	—		
		C116	32 10	6 7	—	A.G. flash	—	—	—	—	and Amytal	—		
		C117	43 5	8 8	—	unit JN34	—	—	68 6	—	Pulvules "A" 40 & 5000	—		
		C118	43 5	8 8	—	Merthiolate (413 Lilly)	—	—	—	—	Moorland (234 Cartwright)	—		
		C119	90 0	18 0	—	cream	—	—	—	—	indigestion	—		
		C122	45 0	9 0	—	4oz	—	—	—	—	biscuits	6oz 25 0	—	
		C123	45 0	9 0	—	tincture	—	—	—	—	health and liver	—		
		decorated nets	58,60,62	18 0	1 8	suppositories (vaginal)	—	—	—	—	salts	6oz 20 0	5 0	
		human hair nets	—	—	—	Metacal (1450 8DH)	—	—	—	—	—	—		
		bun ordinary shades	—	—	—	Metacal (179 8DH)	—	—	—	—	—	—		

[illegible]

Persantin (154 B) (distributors 501 Geigy) ampoules 10mgm/ 2mils	5	7	0ea	1	9ea	12	3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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[illegible]

D	Tikobes (68 AH) tablets			
	Tilleul (1464 D'Orsay)			
	bath salts	14 11ea	3 9ea	28 0
	bath soap	10oz 8 6ea	2 1ea	15 6
	lotion	12oz 22 6ea	5 6ea	42 0
D	Tin-Ox (107 BH&L) tablets			
	Tiodine (1490 IAPS) †			
	pills	250 22 0ea	5 6ea	—
	Toni (1242 Toni)			
	creme hair			
	lightener	38 10	9 2½	5 6
	Tonic Sweets (1559 TS)			
	(distributors 436 Evans)			
	barley fruits,			
	barley sugars,			
	butter pieces,			
	malted milk,			
	milk coffees,			
	mint & butters			
	blackcurrant			
	sticks	10 10½	1 4½	1 3
		(6 doz)	(6 doz)	4
	Topdog (1175 SPL)			
	handy	36 8	—	11½
	(4 doz)			
	large	32 8	—	1 8½
	(2 doz)			
	Topmist (1157 S)			
	air freshener	27 0	—	2 11
	Topnote (1157 S)			
	shampoo			
	lacquer			
	removing	4 0	1 0	7
	Tosca (1113 S&B)			
	eau de Cologne			
	carton	1248 18 10	4 8½	2 9
		1217 41 2	10 3½	6 0
		1216 72 0	18 0	10 6
		1215 120 0	30 0	17 6
		2887/7	51 5	12 10
	aerosol	1185 121 9	30 5	17 9
	perfume	9100 37 9	9 5	5 6
		3006 78 10	19 8½	11 6
		3005 150 10	37 8½	22 0
	solid Cologne	9114 39 5	9 10	5 9
	Towle's (179 BDH) †			
	chlorodyne	13 9	3 5½	2 0
	1½oz	29 3	7 3½	4 3
	Traka (1490 IAPS) †			
	lozenges	12 15 0	4 0	2 3
		100 54 0	13 6	—
		1000 37 0ea	9 3ea	—
	syrup	80oz 52 6ea	13 1ea	—
	Trancopal (97 Bayer)			
	tablets	15 84 0	21 0	12 3
		60 19 0ea	4 9ea	33 3
		300 84 0ea	21 0ea	147 0
D	Transid (394 DF)			
D	Tresor (726 Lancome) existing entries			
	Tresor (726 Lancome)			
	eaux			
	parfumees	6241 —	—	50 0
		6242 —	—	84 0
		6243 —	—	140 0
	parfume presentation			
	de luxe			
	diamond	62202 —	—	335 0
		62203 —	—	435 0
	gold-and-white decor			
	debutante	62129 —	—	45 0
	handbag			
	size	6219 —	—	45 0
	1½oz	6218 —	—	52 6
	1oz	6211 —	—	84 0
	1oz	6212 —	—	135 0
	2oz	6213 —	—	240 0
	3½oz	6214 —	—	360 0
	soap	060 —	—	6 6
	talc plastic	591 —	—	12 6
	metal	590 —	—	12 3
	Trim (509 Gibbs)			
	hair cream	16 6	4 1½	2 2
		24 9	6 2½	3 3
	Trinitrine-Papaverine (49 AF)†s7			
	pills	60 69 0	17 3	9 2
	Trimmetts (1262 UL)			
	Trimmers	22 6	—	2 6
	Triogesic (1303 Wander)†s7			
	suspension			
D	Trophonium (394 DF)			
D	Trufood (1249 Trufood)			
	junior cereal	8oz 14 5	—	1 6
	Tryptar (61 APC)			
	ointment			
D	Trypene Novo (394 DF)			
	1 gm			
	T.T.T. (1372 CCL)			
	adhesive	8 0	—	1 0
D	Tuamine sulphate (413 Lilly)			
	solution 2% 2oz & 16oz			
D	Tuazole (413 Lilly)			
D	Tube-o-Dents (177 BDS)			
	Tubocurarine chloride (394 DF)			
	ampoules 10 mgm/ml			
	1.5 mls	100 222 8ea	—	334 0
	50			
D	Tulle Gras Lumiere (49 AF)			
	compress			
	10cm x 10cm	10 89 0	—	9 11

D Tylan (1477 Elanco) existing entries

Tylan (1477 Elanco)			
injectable 6.25gm	20 0ea	—	30 0
12.5gm	39 2ea	—	58 9
soluble	50gm 75 0ea	—	100 0
100gm	142 10ea	—	190 6
tablets 250mgm			
50	44 0ea	—	66 0
vet. formula			
20gm	33 4ea	—	50 0
Tylan 50 (1477 Elanco)			
injection 25mls	5 10ea	—	8 9
Tylan 200 (1477 Elanco)			
injection 50mls	35 0ea	—	52 6
Ulay (496 Garsalle)			
vitamin night			
cream	80gm 90 0	22 6	13 2
old size			
Uneeda (821 McGlashan)			
headache			
powders	8 14 6	3 7½	2 0
	32 52 0	13 0	3
	72 118 0	29 6	3
Union Jack (1522 UJPC)			
corn paste	6 6	1 8	1 0
	14 0	3 6	2 0
D	Urolucosil (1310 VVW)		
	tablets 25		
	Uromide (291 Consolidated) †s4B		
	tablets 25	7 1ea	1 9½ea
	Utella (1414 Strange)		
	hair wavers		
	and curlers	13 4	3 4
			2 0
	Valium (1704 Roche)		
	syrup 2mgm/5mls		
	Valmidate (413 Lilly)		
	tablets 0.5gm 25 & 1000		
D	Vaporstik (925 Owbridge)		
	vaporising rub	22 0	5 6
			3 0
	Vascutit (154 B)		
	(distributors 501 Geigy)		
	drops 1%	1oz 64 0	—
	tablets 12.5mgm		
	50	78 0	—
	250	27 6ea	—
	500	49 8ea	—
			41 3
			74 6
	Vaseline (256 CPL)		
	hair cream	jar 29 1	7 3
		(2 doz)	(2 doz)
		43 8	10 11
		(2 doz)	(2 doz)
		32 9	8 2
	dispenser refill	36 5	9 1
	hair tonic	(2 doz)	(2 doz)
		27 4	6 10
			3 9
	petroleum jelly		
	yellow	jar 18 9	4 8
	white	20 8	5 2
		37 6	9 4½
	shampoo cream		
	sachet	16 5	4 2
	medicated sachet	16 5	4 2
			9
	Vastarel (1123 SLL)		
	(distributors 785 Macarthy)		
	(distributors 1556 Farillon)		
D	V-Cil-K (413 Lilly) TS		
	Pedipacs 125mgm sachet		
		12 4 4ea	—
		144 50 0ea	75 0
D	tablets 125 mgm 12		
D	250 mgm 12		
	Vetaplasme Langlebert (1336 WJ&C)		
		66 0	16 6
			9 8
D	Vibrona (466 FF)		
	Vibrona (400 JD&B)		
	tonic wine	10oz 79 0	—
		20oz 144 3	—
			8 6
			15 6
	Victor (1333 Wigmore)		
	Acqua di Sella		
		080 —	—
		081 —	—
		082 —	—
		083 —	—
		040 —	—
		041 —	—
	After shave lotion		9 9
			16 6
	deodorant stick		
		103 —	—
	pre-shave	048 —	—
	talcum	050 —	—
D	Victory (177 BDS)		
	Vinolia (509 Gibbs)		
	baby soap	9 1	2 3½
	soap toilet	9 1	2 3½
	bath	13 11	3 6
	Vitasac (1197 Sumner)		
	1 lb	60 0	—
			6 9
	Vitathone (333 Cupal)		
	tablets	50 29 9	—
			3 6
	Vitavel (1285 Vitamins)		
	folic acid tablets		
	5 mgm	100 28 0	—
	Vocalzone (1290 Vocalzone)		
	pastilles	17 0	4 3
			2 3
	Validan 21 (179 BDH)†s4B		
	tablets	21 80 0	—
			10 0
	Wander (1303 Wander)		
	diabetic canned		
	fruits	8oz 18 0	—
			2 0

D Wasp-eze (179 BDH)

Wasp-eze (1565 WMCC)			
(distributors 812 M&PP and 179 BDH)			
aerosol for stings			
Watalux (980 Photopia)			
flash unit	W15	—	—
X2	W63	—	—
Watersprite (1160 Solport)			
face cloth	G296	17 6	—
	G295	18 0	—
	G300E	18 6	—
Waymaster (999 PEC)			
baby weigher			
	196P	195 0ea	19 0ea
personal scale			
	218/2	55 0ea	5 4ea
	618C	75 0ea	7 4ea
	720	45 0ea	4 5ea
Wellcome (208 BW)			
fowl pest vaccine			
	50mls	63 0	—
	250mls	25 6ea	—
	500mls	49 6ea	—
Whip (933 PLG)			
parfum de toilette			
	trial	8 0ea	2 0ea
	3½oz	22 5ea	5 7ea
	7oz	33 7ea	8 5ea
D	Wilkinson (1339 Wilkinson)		
D	Long Life razor blades		
	pigskin strop		
	Super Sword Edge blades		
	Swordpack dispenser		
		5 100 0	25 0
		(50 pkts)	(50 pkts)
Windsor (1070 Windsor)			
skin perfume			
		1223 45 6	11 1
Woltz (1372 CCL)			
manicure set			
	No. 1	89 11	21 3
	No. 2	103 2	24 6
Wonder Set (1531 WS)			
	large	40 6	9 7½
D	old size		
D	Wrigley's Spearmint (1223 TWC)		
	chewing gum	6 7½	11½
		(20 pkts)	(20 pkts)
Yales (752 Lenton)			
support socks			
	for men	pr. 12 6ea	—
Springtime support hose			
	seamed or		
	seamless	pr. 19 8ea	—

W Era=New Era Laboratories, Ltd., 87 Saffron
London, E.C.1. Chancery 1481.
ville=Saville Perfumery, Ltd., Parkville House,
e Street, Pinner, Middlesex. Pinner 5868.
nbeam=Sunbeam Electric, Ltd., Radnor House
on Road London S.W.16. Pollards 8671.
oni=Toni Co., Hawley Lane, Farnborough, Hants.
orough 45011.
nic=Unic Shavers, Ltd., 11 Albert Square,
hester, 2. Blackfriars S214.
P = Therapeutic Products, Ltd., 18 Green
on Lane, London, N.21. Laburnum 1597.
LL=Meeson Laboratories, Ltd., Westfield
e, Chat Hill Road, Thornton, Bradford. Thornton

1500 MM&M=Minnesota Mining & Manufacturing
Co., Ltd., 3M House, Wigmore Street, London, W.1
Hunter 5522.
1515 CD=Chelsea Drug & Chemical Co., Ltd.,
310 Old Brompton Road, London, S.W.5. Frobisher
4321.
1549 Matthews=Matthews Laboratories, Ltd., Glan-
severn Hall, Berriew, Montgomerys. Berriew 205.
1553 Contactasol=Contactasol, Ltd., 70 Wigmore
Street, London, W.1. Hunter 4861.
1554 BL=Babytown Ltd., Hoddlesden Mills, Darwen,
Lancs. Darwen 1383.
1555 Corsectric=Corsectric, Ltd., 6 Cadogan Lane,
London, S.W.1. Belgravia 8306.
1556 Farillon=Farillon, Ltd., Chesham House, Chesham

Close, Romford, Essex. Romford 46021.
1557 PWL=Pains-Wessex, Ltd., High Port, Salisbury,
Wilts. Middle Woodford 282.
1558 MCL=Mayfair Chemicals Ltd., 40 Shepherd
Street, London, W.1. Grosvenor 3184.
1559 TS=Tonic Sweets, The Toffery Laburnum Avenue,
Whitley Bay. Whitley Bay 20927.
1560 JSPD=Jean Sorelle Ltd. (Promedico Division),
21 Turle Road London, N.4. Archway 6727.
1561 MD=Michael Denham, Ltd., Catherine Wheel
Road, Brentford, Middlesex. Isleworth 8920.
1564 J&W=Johnson & Wayne, Ltd., 73 High Street,
Lewes, Sussex. Lewes 3174.
1565 WMCC=West Mount Chemical Co. Ltd.,
19 Borough Road, Sunderland.

THIS WEEK'S CHANGES

Prices are given in the sequence: Trade price per doz./purchase tax per doz./retail price
(bold if maintained). thus:—17s 11d/4s 3d/2s 3d. A dash — in any column indicates that the
manufacturer has provided no figure appropriate to that column.

phen (1153 S.K.F.)
tablets
ryse Salome (1372 CCL)
perfume miniature 32 2 7 8 5 0
nagen (912 O)
jar, 60gm 44 7 11 2 6 3
500 20 7ea — —
ntifresh (1262 UL)
40gm 17 1 4 3 2 3
70gm 24 7 6 2 3 3
tabeth Arden (60 Arden)
colour veil set
547-00 — — 45 6
compact 546-00 — — 24 6
refill 548-00 — — 10 6
blending brush
796-00 — — 21 0
pastab (147 Boots)
forte 2 mls 6
xital (922 Ortho) sls4A
tablets 100 56 0
dp 500 222 0 — —
tonet (733 Lastonet)
foot powder
Lastorinse
thral-N (583 HP)
topical ointment 10 gm

R Nidoxital (922 Ortho) ts1s4A
capsules 20 120 0 — 15 0
dp 100 480 0 —
Old Spice (1131 Shulton)
after shave skin conditioner
3750 63 6 15 6 9 9
Cologne 49 0 11 11 7 6

A = Price advanced
R = Price reduced
• = New entry
D = Delete
C = Correction

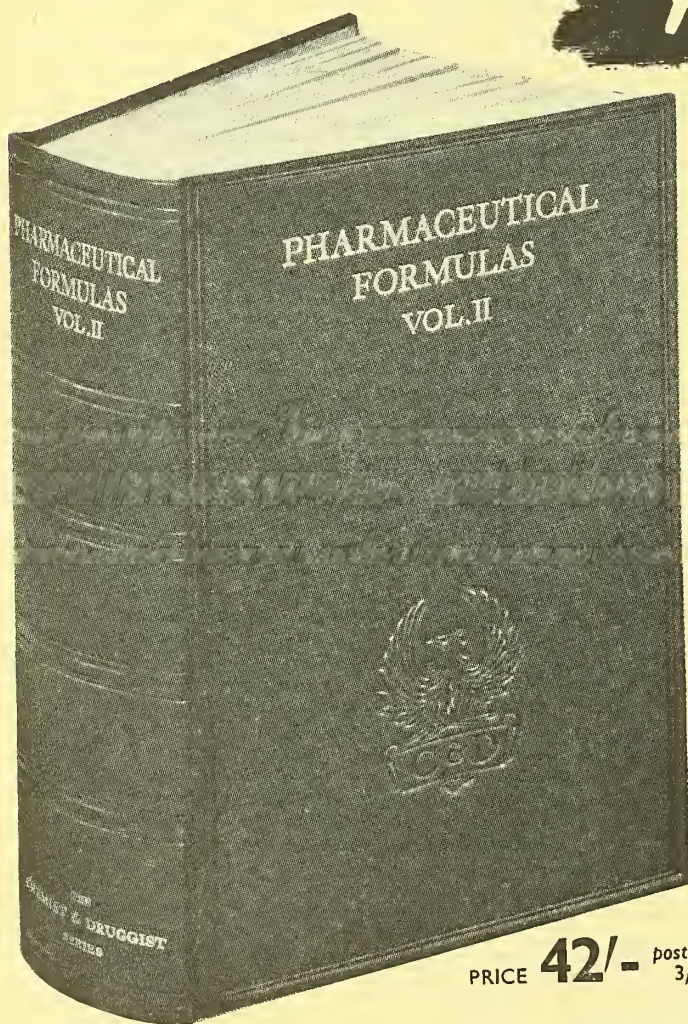
Ortho-Novin (922 Ortho) ts4B
Calendar pack 6 34 0ea — 51 0
Osbil (971 PSMB)
D tablets
capsules
0-5gm 6x6 18 4 — 27 6
D Paraflex (1383 McNeil)

R Paraflex (922 Ortho)
tablets 25 45 0 11 6 6 7½
100 162 0 40 6 23 7½
dp 500 720 0 180 0 —
D Parafon (1383 McNeil)
R Parafon (922 Ortho)
tablets 25 39 0 10 0 5 8½
100 144 0 36 0 21 0
dp 500 660 0 165 0 —
forte 25 54 0 13 6 7 10½
100 192 0 48 0 28 0
dp 500 900 0 225 0 —
Philishave (977 PE)
• Diplomat shaver 99 11ea 24 4ea 157 6
R Envoy shaver 98 3ea 24 0ea 155 0
• Plesmet F.A. (276 C&C)
tablets 100 48 0 — 6 0
1,000 27 0ea — 40 6
R Rarical (922 Ortho)
tablets 100 61 0 — 7 7½
dp 1,000 480 0 — —
R Rosedale (261 Christy)
hair spray aerosol large 34 6 8 7½ 4 11
22 0 5 6 2 11
R shampoo
D Savett (1327 WLL)
towelettes
C Tetrazets (837 MSD) †TS

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